February 16, 2000

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 2000-03
NPDES PERMIT NO. CA0001350

WASTE DISCHARGE REQUIREMENTS
FOR
CABRILLO POWER I LLC
ENCINA POWER PLANT
SAN DIEGO COUNTY

Table of Contents

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On January 28, 1985, the Regional Board adopted Order No. 85-10, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001350, Waste Discharge Requirements for San Diego Gas & Electric Company, Encina Power Plant, San Diego County. Order No. 85-10 established waste discharge requirements for the combined discharge of up to 860.3 million gallons per day (MGallons/Day) of elevated temperature once-through cooling water and other waste discharges from the San Diego Gas & Electric Company (SDG&E) Encina Power Plant to the Pacific Ocean.

2. On November 10, 1994, the Regional Board adopted Order No. 94-59, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001350, Waste Discharge Requirements for San Diego Gas & Electric Company, Encina Power Plant, San Diego County. Order No. 94-59 established waste discharge requirements for the combined discharge of once through cooling water and other waste discharges from the San Diego Gas & Electric Company (SDG&E) Encina Power Plant to the Pacific Ocean.

3. Order 94-59 was modified once by addendum during the life of the permit. Addendum No. 1 to Order 94-59 was adopted on August 8, 1996 and increased the allotted time to complete certain special studies.

4. Since adoption of Order No. 94-59, the ownership of the Encina Power Plant changed. Ownership was officially transferred on May 22, 1999 from San Diego Gas and Electric Company to Cabrillo Power I LLC (Cabrillo). Cabrillo has assumed all responsibility, coverage, and liability in regards to this NPDES permit.

5. On April 9, 1999, San Diego Gas and Electric submitted an application for renewal of the Encina Power Plant's NPDES permit. A United States Environmental Protection Agency (USEPA) Form 2C Permit Application was submitted as part of the application. Completion of this form requires an extensive survey of chemicals present in the plant discharge.

6. On May 6, 1999 Regional Board staff sent a letter to SDG&E requesting additional information. SDG&E submitted the required information on May 11, 1999. The submittal included a schematic drawing of the low volume and metal cleaning waste treatment facilities and a description of solid waste disposal methods. The Regional Board Executive Officer sent a response letter dated May 18, 1999 to SDG&E, then the owner of the Encina Power Plant. The letter stated that the application was now complete. On August 20, 1999 staff received an NPDES application packet from Cabrillo

containing updated information regarding the recent change of ownership.

7. On September 14, 1999, Regional Board staff sent a second letter to Cabrillo Power I LLC, the new owner of the Encina PP requesting submittal of additional information to be used in drafting an updated NPDES permit. The information requested included characterization of most of the plant waste streams, a mass balance of a number of chemicals used in plant operations, a material safety data sheet (MSDS) for a number of proprietary chemicals, and a process flow diagram with average flowrates. On November 15, 1999, Cabrillo submitted all of the requested information.

8. The Encina Power Plant is located at 4600 Carlsbad Boulevard, in the southwest sector of the City of Carlsbad, California, adjacent to the Agua Hedionda Lagoon on the Pacific Ocean. The Encina Power Plant is in Section 18, T12S, R4W, SBBM.

9. Cooling water is withdrawn from the Pacific Ocean via the Agua Hedionda Lagoon. After passing through the intake structure, trash racks and traveling screens, the cooling water is pumped through the condensers for the steam turbine generator units. The amount of cooling water required is dependent upon the number of units in operation. After passing through a discharge pond, the Encina Power Plant discharges heated water and various in-plant wastes to the Pacific Ocean at Latitude 33° 08'17" N, Longitude 117° 20' 22" W.

10. The Encina Power Plant has five steam turbine generator units and one gas turbine generator unit. The generator units burn primarily natural gas, but are capable of conversion to fuel oil should economic or natural gas curtailment conditions necessitate. Though each of the units operates independently, the steam turbine generator units share the facility's once-through cooling water system. The gas turbine generator is air-cooled. The table below summarizes each unit's capacity and start-up date.

Unit	Date on Line	Capacity
1	1954	107 MW
2	1956	104 MW
3	1958	110 MW
4	June 1973	287 MW
5	November 1978	315 MW
Gas Turbine	1968	16 MW
Total Plant Capacity		939 MW

The total rated net generating capability (based on peak operations in summer, using oil fuel) of the Encina Power Plant is 939 MW.

11. Cabrillo has claimed a maximum combined discharge flowrate of 863.142 MGallons/Day. This includes 857.29 MGallons/Day of once through cooling water. The remainder consists of low volume wastes, metal cleaning wastes, and stormwater runoff. Domestic wastewater is discharged to the municipal sewer system for treatment and disposal. Attachment 2 contains a water flow diagram showing the maximum flowrate of each waste stream.

12. Over the last four years, the Encina PP combined cooling water flow averaged 511.538 MGallons/Day. Cooling water flow accounted for 511.250 MGallons/Day of this total. On average, 0.288 MGallons/Day of waste reaches the combined cooling water flow. Attachment 3 contains a water flow diagram showing the average flowrate of each waste stream.

13. The Encina Power Plant has the following wastewater discharges to the ocean:

    (a) Once-Through (Non-contact) Cooling Water
    (b) Low Volume Wastes
    (c) Metal Cleaning Wastes
    (d) Stormwater Runoff

    For purposes of this Order, low volume wastes and metal cleaning wastes shall constitute in-plant wastes as referred to in Chapter IV of the Ocean Plan.

14. The wastewater discharge flow volumes from the Encina Power Plant are as follows (MGallons/Day):

Wastewater Discharge	Maximum Flow
(a) Once-Through (Non-Contact) Cooling Water	857.29
(1) Condenser cooling	
(2) Cooling water pump lubrication and seal water	
(3) Cooling water pump lubrication and seal water pretreatment backwash	
(4) Salt water heat exchanger cooling water	
(5) Traveling screen backwash water	
(6) Tunnel and forebay cleaning	
(7) Hypochlorinator bearing cooling water	
(b) Low Volume Wastes	3.77450
(1) Boiler blowdown	
(2) Evaporator blowdown	
(3) Sample drains	
(4) Floor drains	
(5) Demineralizer	
(6) Softeners	

(7) Condenser cleaning
(8) Freshwater reverse osmosis (RO) brine
(9) Seepage and ground water pumping
(10) Seawater RO brine/backwash
(11) Fuel line/tank hydrotest
(12) Sand filter backwash
(13) Portable demineralizer rinse flush
(14) RO membrane cleaning
(15) Salt Water Heat Exchanger Drains

(c) Metal Cleaning Wastes 0.7971
(1) Boiler chemical cleaning
(2) Hypochlorinator chemical cleaning
(3) Evaporator chemical cleaning
(4) Air heater wash
(5) Boiler fireside wash
(6) Selective catalytic reduction wash

(d) Stormwater Runoff 1.280

15. Intermittent chlorine treatment is used to minimize formation of slime, which occurs in the condenser tubes if control measures are not practiced. At the Encina Power Plant, sodium hypochlorite is manufactured on-site as needed. It is produced electrolytically from sodium chloride in the seawater. Seawater from the intake is pumped through each of the two hypochlorinators, which are comprised of electrolytic cell modules arranged in series. The hypochlorite produced is fed into a holding tank, where it is diluted with intake water. Then the sodium hypochlorite solution is injected to the channel immediately upstream of the once-through cooling water and salt water service pump suctions for each unit. Each injection point is individually controlled. Hypochlorination is conducted for about five minutes per hour per unit on a timed cycle each day. This method of chlorination will result in a minimal chlorine residual in the cooling water being discharged to the ocean. In addition to the chlorine treatment, sodium bromide may be used as a chlorine enhancer. While in service, a small stream of filtered seawater is used for once through non-contact cooling and discharged to the cooling water intake system. Periodic chemical cleanings using nitric and hydrochloric acids are required to remove accumulated mineral scale from the hypochlorinators. Wastes from these cleanings are routed to the plant's metal cleaning waste-water treatment facility for treatment prior to discharge.

A bromide additive (sodium bromide), which reacts with chlorine to form hypobromous acid, and a biodispersant (Nalco Sure Cool 1367) were tested between 1989 and 1991 at the SDG&E South Bay Power Plant for their ability to control biological fouling on the cooling water side of the condensers. Based on testing, Cabrillo Power I LLC may use

sodium bromide and the biodispersant (or equivalent), in conjunction with sodium hypochlorite, in the future at the Encina Power Plant. Test methods for total residual chlorine (TRC) measure total residual oxidants, which includes hypobromous acid. Consequently, the TRC effluent limit in this permit regulates the discharge of bromide.

16. Encrusting organisms in the early stages of development are small enough to pass through the trash racks and screens, and enter the intake tunnels. The encrusting organisms can attach themselves to the tunnel walls, traveling water screens, and other parts of the cooling water system. If not removed, the encrusting organisms grow and accumulate at a rate of approximately 1000 cubic yards over a 6-month period. These accumulations restrict the flow of cooling water to and through the condensers, causing a rise in the condenser operating temperature and the temperature of the discharged once-through cooling water. Although intermittent chlorination is practiced at Encina, only the condensers and salt water heat exchangers are chlorinated. Due to the ability of encrusting organisms to withstand intermittent exposure to chlorine, effective control of biofouling in the cooling water intake structures via chlorine would require continuous chlorination of the entire intake system. Continuous chlorination is not considered a viable option because it requires the addition of large volumes of chlorine on a continuous basis. Consequently, in order to prevent encrusting organisms from developing to any significant size or quantity, a thermal tunnel recirculation treatment procedure (heat treatment procedure) is used periodically (at approximately five to eight week intervals). The treatment kills the encrusting organisms, which release from the surfaces and wash through the condensers to the ocean with the cooling water discharge, thus reducing the need for maintenance outages for manual cleaning of the once-through cooling water inlet tunnels and condensers. This practice also helps to maintain a lower possible temperature rise across the condensers, thereby improving plant efficiency, and reducing normal plant cooling water discharge temperatures.

Although many of the encrusting organisms which release from the surfaces are washed through the condensers to the ocean, over time an accumulation of shells and sediment occurs in the cooling water tunnels and forebays. These shells and sediment are periodically discharged to the cooling water discharge system.

17. Heat treatment is performed by restricting the flow of cooling water from the lagoon and recirculating the condenser discharge water through the conveyance tunnels and condensers until the inlet water temperature is increased to the treatment temperature. Recirculation of the cooling water is accomplished through a cross-over tunnel located

approximately 120 feet from the discharge, adjacent to the intake channel. The temperature is raised to 105°F in the intake tunnels and maintained (heat soak) for approximately two hours, which has proven to be adequate in killing and removing encrusting organisms. Each time the cooling water passes through the condensers, it picks up additional heat rejected from the steam cycle. During a heat treatment procedure, each pass can add up to 15°F to the cooling water temperature, resulting in effective treatment temperatures of up to 105°F at the intake tunnels. Because the cooling water continues to circulate and the generator units continue to operate, the post-condenser temperature in the discharge channel can reach 120°F. To maintain the treatment temperature of up to 105°F during the heat soak phase (and to prevent the continued cooling water heat build-up), additional lagoon water is blended into the cooling water system and a corresponding volume of water is discharged to the Pacific Ocean to balance against the heat added at the condensers. The target heat treatment duration is 2 hours and represents the period of time at the target temperature (105°F in the intake tunnels) and not the time required to reach the target temperature and the time to return to normal operation. The total time required for the heat treatment procedure, including temperature buildup and cool-down, is approximately seven to nine hours. Because the cooling water discharge is restricted during the heat treatment in order to recirculate the heated effluent, the plant's discharge flow rate is reduced to approximately 7 to 45 percent of its full flow rate during normal operations.

18. On February 1, 1994, SDG&E submitted the results of a special study intended to justify an increase in the maximum discharge temperature from 105°F to 120°F. This new value was included in the 1994 NPDES permit. The study showed a significant reduction in the size of the thermal plume during heat treatment. This resulted from the closure of the discharge gates during the heat-up portion of heat treatment. Once the cool-down phase began, discharge of superheated water to the ocean resulted in a thermal plume approximately three times larger than normal. Several hours passed before the return to steady-state.

19. On October 10, 1999, Regional Board staff inspected the Encina Power Plant during a heat treatment. Cabrillo Power I LLC was found to be in compliance with the limitations specified in order 94-59. Staff requested and received a decision tree to be used in scheduling of heat treatments. This diagram is included as Attachment 4.

DESCRIPTION OF LOW VOLUME WASTE STREAMS

20. Low Volume Waste (LVW) Treatment Facility: The low volume waste treatment facility treats all of the plant's low volume wastewaters, except for Reverse Osmosis (R.O.) brine,

boiler blowdown, seawater R.O. pretreatment backwash, fuel line/tank hydrotest and groundwater dewatering from Units 4 and 5 basement subdrain systems. These are discharged directly to the once through cooling water system. The LVW treatment system is comprised of two 100% capacity wastewater treatment trains. Each train is composed of a LVW Surge & Equalization Tank (to accommodate the various intermittent wastewater flows and flow rates from the plant) and an Oil/Solids Coalescer and Separator Unit. Effluent from the LVW treatment system is discharged to the plant's once through cooling water system. Discharges from the facility occur intermittently throughout the day based upon the wastewater flow rate from the plant. Filtration of low volume wastewater in the metal cleaning waste treatment facility's multimedia filter may be performed as an alternative treatment or as a back-up treatment in the event the oil/solids separator becomes inoperable.

21. Freshwater R.O. Sand Filter Backwash: Prior to passing city supply water through the R.O. membranes, the water is pre-treated through sand filters to remove suspended solids and debris in the city water. This prevents premature fouling of the R.O. membranes. These sand filters periodically require backwashing to maintain their effectiveness. Backwashes can be as frequent as daily depending on the load of suspended solids in the incoming city water. Wastewaters generated by the backwash process are routed through the self-neutralization tank prior to being routed to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

22. Freshwater R.O. Brine: City supply water used in the boilers to generate steam must first be pre-treated to produce demineralized water. As a first step in the reverse osmosis/demineralization water purification process, the city water goes through a reverse osmosis (R.O.) pre-treatment process to remove suspended and dissolved solids. Sand filters upstream of the R.O. membranes remove the suspended solids. The R.O. removes the dissolved solids and discharges them in a "brine" composed of approximately 25% of the incoming water and the rejected solids. This brine is discharged through a line that is routed directly to the once through cooling water system. Discharge of the brine normally occurs daily and is intermittent throughout the day.

23. R.O. Membrane Cleaning: The membranes in the reverse osmosis unit require occasional cleaning to remove mineral deposits from the membrane surface. Membrane cleaning frequency is approximately once per six months, but is ultimately dependent upon the membrane fouling rate. Wastewaters generated by the cleaning process are routed through the self neutralization tank prior to being routed to the low

volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

24. Demineralizer: Demineralizers are used as the second and final step in the plant's primary boiler makeup water treatment process (i.e., reverse osmosis/demineralization). It takes water pre-treated in the freshwater R.O. system and further treats it. This treatment is considered a "polishing" step. Over time the demineralizer resins become exhausted and need to be regenerated. Acid and caustic steps are used to regenerate the demineralizer. Wastewater from these steps are routed to a tank for self neutralization and then routed to the plant's low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system. Regeneration is performed on a periodic basis (approximately once every three weeks) that is based upon actual plant operations and demand for make-up water.

25. Condenser Cleaning: Periodic manual cleaning of the condenser tubes is conducted to maintain the cleanliness of the condenser tubes. Keeping the tubes clean provides better heat transfer and helps to prevent localized pitting of the tube material. Manual cleaning is conducted using a high pressure air/water stream shot through the tubes and/or metal or plastic scrapers pushed through the tubes using water pressure. Cleanings are periodic (e.g., every 2-12 weeks) and are conducted more frequently during the summer when water temperatures are higher and there is faster growth of fouling organisms. The wastewater generated from this process is discharged to the plant's low volume waste system that goes to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

26. Floor Drains: Floor drains are located throughout the plant and, in addition to being used for routing low volume waste streams to the low volume wastewater treatment facility, are used to collect miscellaneous wastewaters from the plant's operating equipment. Wastewater that enters the floor drains collect in sumps. Once a sump reaches a preset level, the water is pumped to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

27. Sample Drains: The plant must maintain the quality of water it uses in different systems (e.g. boiler water) within certain parameters for operations. This is accomplished by the use of online automatic samplers/analyzers and discrete samples to evaluate water quality. Many of these sample streams run continuously. Some of this water is recovered for reuse in the plant. The sample streams that are not recovered for reuse are discharged to the plant's low volume

waste system that goes to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

28. Portable Demineralizer Rinse Flush: Under certain circumstances (e.g., the plant's demineralizer is out of service for maintenance, unit startups after overhaul) a portable demineralizer(s) is brought on-site to provide demineralized water to the plant. Prior to using water produced by the portable unit, it is run until the water it is producing meets the plant's specifications. This "rinse flush" water is discharged to the plant's low volume waste system that goes to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system. Use of the portable units is very infrequent. The rinse flush may last approximately one to two hours at the beginning of each use of the unit.

29. Evaporator Blowdown: Evaporators are an integral component of an alternate boiler make-up water pre-treatment system (i.e. water softening/evaporation). When the total dissolved solids in the evaporator increase to preset levels the unit is blown down to the low volume waste collection system that goes to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system. When in use, blow down discharges occur intermittently throughout the day. Although the evaporators are not routinely used at this time, they remain an integral part of the plant's alternative water make-up system.

30. Softeners: Water softening is another integral component of the plant's alternate boiler make-up water pre-treatment system (i.e., water softening/evaporation). City supply water is pre-treated through a softener prior to being routed to an evaporator. Periodically, the water softener requires regeneration using a brine solution made from salt. Regeneration wastes are routed to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system. Although water softening is not routinely used at this time, it remains an integral part of the plant's alternative water make-up system. When in use, regenerations are done on a periodic basis (approximately once per day) that is based upon actual plant operations and demand for make-up water.

31. Boiler Blowdown: The boilers at the Encina Power Plant operate at very high temperatures and pressures and, to do so, they require high quality water. The high quality water is prepared for use in the boilers from city supply water through one of several pre-treatment systems (i.e., reverse osmosis/demineralization or water softening/evaporation). Over time, the dissolved solids content of the water in a boiler increases. To reduce the dissolved solids

concentration, the boiler is "blown down." That is, an operator opens a valve on the steam drum discharge line (that discharges boiler water with elevated concentrations of dissolved solids) while at the same time adding treated make-up water to the boiler system. The net result of these actions is to decrease the dissolved solids concentration in the boiler to a level within specified operating requirements. Blowdown discharges are infrequent and intermittent under normal unit operating conditions. For example, a unit's boiler may not blow down for a week or more at a time. Alternatively, a boiler could blow down semi-continuously over several days or more while a condenser leak is investigated and repaired. Blow down occurs most frequently during unit start-ups, major water chemistry upsets, and condenser leaks. Blow down also occurs monthly to collect NPDES discharge samples from the boilers in operation. Since the plant must "make up" treated water to replace boiler blowdown, there is an incentive to minimize the frequency and duration of blowdown events. There is, however, also an incentive to blow down when necessary because it minimizes corrosion in the boiler and can help to minimize the frequency of boiler cleanings. The blow down line for each unit is routed directly to the once through cooling intake tunnel on the cooling water deck.

32. Seawater R.O. Pre-Treatment: It is anticipated that, in the event of a fresh water shortage, a reverse osmosis unit may be used to produce water for plant operational purposes from seawater. Depending on the suspended solids loading of the source water it may need to be pretreated to remove suspended solids prior to the R.O. unit. The removed solids would be combined with the R.O. brine direct discharge to the plant's once through cooling water system. This sytem has not yet been installed. However, it is anticipated that when it is operational the pretreatment discharges would occur intermittently during the day.

33. Saltwater R.O. Brine: It is anticipated that the proposed seawater R.O. unit would produce a "brine" composed of approximately 60% of the incoming water and the rejected solids. This brine would be discharged through a line that is routed directly to the once through cooling water system. Discharge of the brine would occur daily and be intermittent throughout the day.

34. Saltwater R.O. Membrane Cleaning: It is anticipated that the membranes of the proposed R.O. unit would require occasional cleaning to remove mineral deposits from the membrane surface. The cleaning frequency is anticipated to be approximately once per six months. However, the cleaning frequency is ultimately dependent upon the membrane fouling rate. Wastewaters generated by the cleaning process would be routed to the low volume wastewater treatment facility

for treatment and subsequent discharge to the once through cooling water system.

DESCRIPTION OF METAL CLEANING WASTE STREAMS

35. Metal Cleaning Treatment Facility: The wastewaters from cleanings and washes are collected in one or both of the wastewater receiving tanks. Then they are neutralized, flocculated, chemically precipitated and filtered to remove metals and solids and routed to treated wastewater tanks to be held for testing. Once the discharge of the treated wastewater is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of wastewater from metal cleanings and washes. The frequency of discharges is dependent upon the frequency of cleanings and washes. The sludge generated by the treatment process is dewatered using a filterpress and disposed of in a landfill permitted to receive the waste.

36. Chemical Cleaning: Boiler tube waterside cleanings are performed using either a dilute acid solution or an organic chelant based cleaning solution. The boiler to be cleaned is drained of the water it contains and filled with fresh water, then fired to heat the water and metal up to temperature. When the required temperature is attained, a "fast drain" is done and the warm water is pumped back into the boiler with the chemicals mixed into the water during pumping. At this point the boiler is allowed to sit for six hours with the cleaning solution inside. The temperature is monitored so that if the system cools too quickly it can be drained sooner. After the cleaning solution has been given time to work on the deposits, another fast drain is done and the cleaning job is checked to ensure that the deposits have been removed. A rinse cycle follows and samples are taken during the draining. Usually a second and a third rinse are done. The third volume of water contains citric acid. The final volume in the cleaning operation contains phosphate and sodium hydroxide as neutralizing agents. Cleanings are conducted to remove deposits that inhibit heat transfer and increase the danger of boiler tube failure. Cleaning solutions, passivation wastewater and rinses are collected in one or both of the metal cleaning wastewater receiving tanks. Wastewater is processed through the treatment facility and held for testing prior to discharge. Once the discharge is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of a cleaning and are normally discharged over a period of two to four weeks. A unit's boiler is normally cleaned once every six to seven years, however, conditions could occur that require more frequent cleaning.

37. Air Heater Wash: Air heater and air pre-heater fireside washes are performed to remove soot and accumulated combustion by-products from metal surfaces in order to maintain efficient heat transfer. These washes are accomplished by spraying high-pressure city supply water against the surfaces to be cleaned. Wastewater thus generated contains an assortment of dissolved and suspended solids with loadings and constituents that are dependent upon the facility's fuel and metals from the corrosion of the heater. These washwaters are collected in one or both of the metal cleaning wastewater receiving tanks. Wastewater is processed through the treatment facility and held for testing prior to discharge. Once the discharge is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of wastewater of a wash and are normally discharged over a period of two to four weeks. A unit's heater and pre-heater are normally cleaned once per year, however, conditions could occur that would require more frequent washing.

38. Boiler Wash: Boiler tube fireside washes are performed to remove soot and accumulated combustion by-products from metal surfaces in order to maintain efficient heat transfer. These washes are accomplished by spraying high-pressure city water against the surfaces to be cleaned. Wastewater thus generated contains an assortment of dissolved and suspended solids with loadings and constituents that are dependent upon the facility's fuel and metals from the corrosion of the boiler. These washwaters are collected in one or both of the metal cleaning wastewater receiving tanks. Wastewater is processed through the treatment facility and held for testing prior to discharge. Once the discharge is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of a wash and are normally discharged over a period of two to four weeks. A unit's boiler is normally cleaned once per year, however, conditions could occur that would require more frequent washing.

39. Hypochlorinator Chemical Cleaning: Cleaning of the hypochlorinator electrolytic cells is conducted approximately once every six weeks to remove mineral scale. Wastewaters from the cleaning are routed to the metal cleaning wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

DESCRIPTION OF WASTE STREAMS ASSOCIATED WITH COOLING WATER

40. Cooling Water Pump Lubrication and Seal Water Pretreatment Backwash: Circulating water pumps have bronze bearings that are sealed and lubricated with either seawater or fresh

water. Where seawater is used, it must first be filtered to prevent solids from reaching and damaging the bearings. Filtration of the seawater is accomplished using small automatic filtration units. These units are designed to automatically backwash every hour to remove the accumulated solids from the filtering media. This backwash water is routed directly to the once through cooling water system.

41. Salt Water Heat Exchanger Cooling Water: Once-through cooling water is used for cooling plant equipment in addition to condensing steam. Cooling of the plant equipment is accomplished through use of auxiliary heat exchangers that use saltwater to cool "service water" that is piped through-out the plant to cool the plant equipment. There are four heat exchanger systems and each system uses two individual heat exchangers. Normally, only one heat exchanger is used per system at a time, however, under certain operating conditions both heat exchangers in a system may operate at the same time. The once through cooling water from the heat exchangers is discharged directly to the once-through cooling water discharge tunnel.

SDG&E reported that saltwater condenser leaks, though they occur intermittently and infrequently, can cause significant operating problems and increased frequency of boiler chemical cleanings for the power plant. Cabrillo uses alfalfa (or other acceptable materials approved by the Executive Officer) to temporarily plug leaks to allow the unit to operate until it can be removed from service for repair.

42. Traveling Screen Backwash Water: Traveling screens are used to remove small debris from the cooling water stream that could plug the tubes in the condensers. These screens are constructed so that they can be rotated during a cleaning process. As the screens are rotated, a high-pressure water stream is sprayed from the inside of the screen structure to wash off the debris on the outside of the screen into debris baskets. Water for the high-pressure water stream is pumped from the once through cooling water intake system to the spray system. The water that washes the debris into the debris baskets drains back to the once through cooling water system. The traveling screens, and consequently the screen wash systems, are normally operated automatically based upon "screen differential" (i.e., when the difference in water level on the front side of the screen raises to a preset level above the water level on the backside of the screen, the screens are started automatically). However, the traveling screens are also operated in "manual" mode when heavy debris influx requires more continuous cleaning. Traveling screens normally operate approximately 30-40% of the time during a day, although they can operate 100% of the time during periods of heavy debris influx.

43. Tunnel and Forebay Cleaning: Over time, sediment and shells can accumulate in the plant's cooling water intake tunnels and forebays to an extent that it threatens to restrict the flow of the cooling water supply to the units during low tide conditions. The source of these materials is the sediment in the water taken from the Agua Hedionda Lagoon for use as once-through cooling water and the shells are from encrusting organisms which grow on the cooling water tunnel walls and eventually fall off. Cleaning of the cooling water tunnels and pump forebays is conducted periodically to remove the accumulated shells and sediment. Because tunnel/forebay cleaning is normally conducted during a unit overhaul, only the tunnel or forebay for the unit under-going overhaul is usually cleaned at that time. Tunnel/forebay cleaning for a particular unit is not usually conducted more than once every 1-3 years. Water from the tunnel/forebay being cleaned is pumped to the cooling water discharge tunnel. Materials cleaned from the tunnels and forebay are discharged to either the cooling water discharge tunnel or to the cooling water discharge pond.

44. Hypochlorinator DC Rectifier Cooling Water: The plant produces its own sodium hypochlorite for use in chlorination of the cooling water system. Make-up water is drawn from the cooling water and passed through the DC rectifier. The product is then used for the intermittent chlorination of the condensers and heat exchangers. A small stream of once through non-contact cooling water is used to cool the DC rectifier and is discharged to the cooling water system. This cooling stream runs continuously when the rectifier is in operation, but does not discharge when the rectifier is off. With all cooling water pumps in operation, the hypochlorinator generator runs approximately 85-100% of the time during the day.

APPLICABLE PLANS, POLICIES, REGULATIONS, AND STATEMENTS OF COMPLIANCE

45. The State Water Resources Control Board (hereinafter State Board) adopted a revised Water Quality Control Plan for Ocean Waters of California (Ocean Plan) on July 23, 1997 The Ocean Plan identifies the following beneficial uses of state ocean waters to be protected:

a. Industrial water supply;
b. Water contact recreation;
c. Non-contact water recreation;
d. Aesthetic enjoyment;
e. Navigation;
f. Ocean commercial and sport fishing;
g. Mariculture;
h. Preservation and enhancement of Areas of Special Biological Significance;
i. Preservation of rare and endangered species;

j. Marine habitat;
k. Fish migration;
l. Fish spawning; and
m. Shellfish harvesting.

46. In order to protect these beneficial uses, the Ocean Plan establishes water quality objectives (i.e. bacteriological, physical, chemical, biological characteristics, and radioactivity), general requirements for management of waste discharges to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions. Those general requirements applicable to the discharge have been incorporated into this permit in Section D: Receiving Water Limitations.

47. The Ocean plan also establishes limitations for publicly owned treatment works and industrial discharges for which effluent limitations have not been established pursuant to sections 301, 302, 304, or 306 of the Federal Clean Water Act. The Encina Power Plant does not qualify under this definition. However, identical limitations have been applied for settleable solids, turbidity, and acute toxicity at the outfall.

48. The Ocean Plan establishes a procedure for determining effluent limitations that are based on the minimum initial dilution of a discharge by the receiving ocean waters. The State Board has issued a document entitled **Water Quality Control Plan, Table B Guidelines, Ocean Waters of California, 1978 (Table B Guidelines)** to assist in implementing the Ocean Plan. The Table B Guidelines describe two numerical models for use in estimating the minimum initial dilution of a discharge. In 1980, Regional Board staff calculated an initial dilution factor (Dm) of 15.9 using the "Surface Jet Discharge" model specified in the above mentioned document. Order No. 85-10 specified a Dm of 15.5, this value remained unchanged in Order No. 94-59.

Final determination of a dilution factor requires two steps. The engineering step is to mathematically describe mixing that occurs at an outfall structure. The policy step is to determine at which point to require compliance with Ocean Plan receiving water objectives. The dilution factor is the amount of dilution at the point of compliance. For submerged buoyant discharges, the Ocean Plan states that "initial dilution is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally." For surface discharges, initial dilution "is considered completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed

distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for the initial dilution."

The "Surface Jet Discharge" model specifies both the engineering and the policy step. Unfortunately, there is no provision in the model to determine the zone of initial dilution (ZID) that results from the calculated dilution factor. Regional Board staff have requested assistance from the State Board staff to make this determination.

49. In accordance with Chapter IV of the Ocean Plan, this Order establishes effluent limitations based on Table B of the Ocean Plan and a Dm value of 15.5.

Also in accordance with Chapter IV, section B of the Ocean Plan, this Order establishes effluent mass emission rate limitations for all in-plant waste streams taken together which discharge into the cooling water flow on all Ocean Plan Table B constituents except total chlorine residual and chronic toxicity.

50. The Comprehensive Water Quality Control Plan Report, San Diego Basin (9), (Basin Plan) was adopted by this Regional Board on March 17, 1975 and approved by the State Board on March 20, 1975. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board. The most recent revisions were adopted by the Regional Board on September 8, 1994 and affirmed by the State Board on December 13, 1994.

51. The Basin Plan identifies the following beneficial uses of the coastal waters of the Pacific Ocean to be protected:

a. Industrial service supply;
b. Navigation;
c. Water contact recreation;
d. Non-contact water recreation;
e. Ocean commercial and sport fishing;
f. Preservation of Areas of Special Biological Significance;
g. Preservation of rare and endangered species;
h. Marine habitat;
i. Fish migration;
j. Shellfish harvesting;
k. Wildlife habitat;
l. Fish Spawning; and
m. Aquaculture.

52. The Basin Plan also contains narrative and numeric water quality objectives applicable to waters subject to tidal action. These prohibitions and objectives have been incorporated into this Order.

53. Effluent limitations, national standards of performance, and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 403 of the CWA, as amended (33 U.S.C. 1251 et seq.), are applicable to the discharge.

54. On November 19, 1982, the USEPA promulgated revised power plant regulations. The regulations establish effluent limitation guidelines, pretreatment standards and new source performance standards, and are contained in 40 CFR Parts 125 and 423. The best practicable control technology currently available (BPT) and best available technology economically achievable (BAT) effluent limitations promulgated by USEPA to regulate pollutants for the steam electric power generating point source category are applicable. This Order incorporates these effluent limitation guidelines.

55. On May 18, 1972, the State Water Resources Control Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan). A revised Thermal Plan was adopted by the State Board on September 18, 1975. This Plan contains objectives for discharges of elevated temperature wastes (existing and new discharges) to coastal waters.

56. Under the terms and conditions of the Thermal Plan, thermal waste discharges from Units 1-4 are classified as existing discharges. The waste discharge from Unit 5 is classified as a new discharge.

57. Section 316(a) of the Clean Water Act (CWA) requires compliance with the State water quality standards for the discharge of thermal effluent. In 1973, SDG&E conducted a thermal effects study as required by the Thermal Plan. The discharger concluded from the study that the existing discharges from Units 1-3 caused no prior appreciable harm to the aquatic communities of the coastal waters of the Pacific Ocean. The discharger further predicated that the increased discharge from Unit 4 would not cause significant changes in the existing conditions or beneficial uses. Regional Water Board reviewed the thermal effects study and concurred with the discharger's conclusions.

58. On March 6, 1975, under the provisions of Section 316(a) of the CWA, SDG&E applied for an exception for Unit 5 from the following new source performance standards contained in the Thermal Plan and the power plant regulations in effect in 1975.

    (a) Thermal Plan Objective 3.B.(1)

Elevated temperature waste shall be discharged to the open ocean away from the shoreline to achieve dispersion through the vertical water column.

(b) Thermal Plan Objective 3.B.(4)

The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4°F at (a) the shoreline, (b) the surface of any ocean substrate, or (c) the ocean surface beyond 1,000 feet from the discharge system. The surface temperature limitation shall be maintained at least 50 percent of the duration of any complete tidal cycle.

(c) Power plant regulations in effect in 1974, 40 CFR 423.15(L)

There shall be no discharge of heat from the main condensers except:

(1) Heat may be discharged in blowdown from recirculated cooling water systems provided the temperature at which the blowdown is discharged does not exceed at any time the lowest temperature of recirculated cooling water prior to the addition of the make-up water.

(2) Heat may be discharged in blowdown from cooling ponds provided the temperature at which the blowdown is discharged does not exceed at any time the lowest temperature of recirculated cooling water prior to the addition of the make-up water.

59. On July 16, 1976, the U.S. Court of Appeals for the Fourth Circuit remanded certain provisions [including the thermal limitation discussed in Finding 58(c) above] of the power plant regulations in effect in 1974 for further consideration. USEPA has not promulgated a new heat discharge limitation for power plants to date.

60. SDG&E initiated a study in 1975 for the purpose of making a demonstration under Section 316(a) of the CWA in support of its application for the exceptions to the Thermal Plan described in Finding No. 58. As a part of its application for such exceptions under the Thermal Plan, SDG&E proposed alternative thermal discharge limitations which would allow discharges from Unit No. 5 to be made in the same "across the beach" channel used for the thermal discharges from Unit Nos. 1-4, and allow for an alternative to the surface temperature limitation. SDG&E's study was undertaken to demonstrate that SDG&E's proposed discharge alternatives would assure the protection and propagation of the beneficial uses of the receiving waters, including a

balanced, indigenous population of shellfish, fish and wildlife.

61. SDG&E submitted the results of the Section 316(a) demonstration study in 1981. SDG&E concluded that the additional discharge from Encina Power Plant Unit 5, when added to the discharges from Units 1-4, had not resulted in "Appreciable Harm" to the balanced indigenous communities of the receiving waters, or in adverse affects on the beneficial uses of the coastal waters in the vicinity of the Encina Power Plant discharge.

62. SDG&E submitted a supplemental 316(a) Summary Report in 1990. This report provided additional data for the period from 1981 to 1990 and amended the original request based upon actual operating experience.

63. Prior to the adoption of Order 94-59 and based upon a review of the findings of the 316(a) demonstration studies, this Regional Board and USEPA concluded that additional information was needed to determine if the thermal discharge from Encina will allow the propagation of a Balanced Indigenous Community and will ensure the protection of beneficial uses of the water. Order 94-59 required that SDG&E conduct an additional study to supplement its demonstration of compliance with Section 316(a) of the CWA. SDG&E conducted this supplemental study and on August 8, 1997 submitted it to the Regional Board. The supplemental study concludes that no adverse effects of the present operation have been observed or are predicted. The consultant hired by USEPA to evaluate this study has not yet released a final draft review of the study, nor is the Regional Board staff prepared to make recommendations in this regard.

64. CWA Section 316(b) requires that the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. By letter dated October 30, 1977 the Regional Board requested SDG&E to initiate studies to demonstrate conformance with the requirements of Section 316(b) of the CWA.

65. In December 1980 the discharger submitted a final report intended to comply with Section 316(b) of the CWA. SDG&E concluded that "the low and insignificant level of impact demonstrates that the existing Encina Power Plant intake system represents the best technology available for this specific site to minimize adverse environmental impacts" [316(b) Summary, p. 4-26].

66. Prior to the adoption of Order 94-59 and based upon a review of the findings of the 316(b) demonstration studies, this Regional Board and USEPA concluded that additional

information was needed to determine the location, design, construction, and capacity of the cooling water intake structures at the Encina Power Plant reflect the best technology available (BTA) for minimizing adverse environmental impacts and protecting beneficial uses of the receiving water. Order 94-59 required that SDG&E conduct an additional study to supplement its demonstration of compliance with Section 316(b) of the CWA. SDG&E conducted the study and on August 6, 1997 submitted this study to the RWQCB. This study concludes that the assessment demonstrates that the cooling water intake is not having an adverse environmental impact as defined under Section 316(b) of the Clean Water Act and, therefore, the existing intake constitutes BTA. As with the 316(a) studies, the consultant hired by USEPA to help with the study review has not submitted a final draft analysis, nor is Regional Board staff prepared to make recommendations in this regard. It should be noted that by next year, the USEPA is expected to develop the regulations that specify how a 316(b) review will be performed.

67. Because of the configuration of the cooling water intake and discharge structures of the Encina Power Plant, waste constituents and pollutants may be present in the intake water as a result of spills or other discharges beyond the control of the discharger at concentrations that could cause the cooling water discharge from the Encina Power Plant to violate the effluent limits contained in this Order or to exceed the concentrations set forth in Table A and Table B of the Ocean Plan. Prior to initiating enforcement action for such violations under this Order, the Regional Board will take into consideration the source of the waste constituents or pollutants causing the violation(s) and any affirmative actions of the discharger to mitigate the impact of pollutants upon waters of the state and of the United States and to assist in abatement of any pollution or nuisance associated with discharges that violate the requirements of this Order under such circumstances (e.g., development and implementation of contingency plans, actions to eliminate or minimize impacts, avoidance of actions that would exacerbate the problem, etc.).

68. On April 17, 1997, the State Board adopted a renewed General Industrial Storm Water Permit, Order 97-03-DWQ. Cabrillo became the owner and operator of the Encina Power Plant effective May 22, 1999. Therefore, SDG&E terminated its coverage under the General Industrial Storm Water Permit Order 97-03-DWQ. On March 15, 1999, Cabrillo submitted a Notice of Intent to obtain coverage, effective May 22, 1999, for Encina under the General Industrial Storm Water Permit Order 97-03-DWQ. The Best Management Practices (BMPs) contained in Encina's Storm Water Pollution Prevention Plan represent the BMPs required pursuant to Provision 3.

69. Pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California (collectively "antidegradation policies"), the Regional Water Board has determined that an antidegradation analysis is not necessary since this Order does not authorize an increase in the flowrate or mass emission rate of the discharge to the Pacific Ocean. The Regional Board is not currently aware of any information that would indicate that the Encina Power Plant discharge to the ocean is not in compliance with antidegradation policies.

70. This Order shall serve as an NPDES permit for the combined discharge of elevated temperature once-through cooling water and other waste discharges from the Encina Power Plant to the Pacific Ocean pursuant to Section 402 of the CWA, and amendments thereto.

71. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:

    a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;

    b. Other waste discharges;

    c. The need to prevent nuisance;

    d. Past, present, and probable future beneficial uses of ocean waters under consideration;

    e. Environmental characteristics of ocean waters under consideration, including the quality of water available thereto;

    f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;

    g. Economic considerations;

    h. The need for developing housing within the region; and,

    i. The need to develop and use recycled water.

72. The issuance of waste discharge requirements for this discharge is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (Public Resources Code, Division 13, Chapter 3, Section 21000 et seq.) in accordance with the California Water Code, Section 13389.

73. The Regional Board has notified Cabrillo and all known interested parties of its intent to renew NPDES permit requirements for the existing discharge of waste.

74. The Regional Board has, at a public meeting, heard and considered all comments pertaining to the discharge of once-through cooling water and other wastes from the Encina Power Plant to the ocean.

IT IS HEREBY ORDERED, that Cabrillo Power I LLC (hereinafter discharger), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and the regulations adopted thereunder, shall comply with the following requirements for the discharge from the Encina Power Plant to the Pacific Ocean:

A. PROHIBITIONS

1. Discharges of waste in a manner or to a location which has not been specifically described to the Regional Board and for which valid waste discharge requirements are not in force are prohibited.

2. Compliance with Discharge Prohibitions as stated in Chapter V of the 1997 Ocean Plan (Attachment 5) is required as a condition of this Order.

3. Compliance with Discharge Prohibitions contained in the 1994 Basin Plan (Attachment 6) is also required as a condition of this Order.

4. The discharge of oil or any residuary product of petroleum to the waters of the State, except in accord with waste discharge requirements or other provisions of Division 7, California Water Code is prohibited.

5. The discharge of polychlorinated biphenyl compounds, such as those commonly used for transformer fluid, is prohibited.

6. Total residual oxidants may not be discharged from any single generating unit for more than two hours per day unless the discharger demonstrates to the Regional Board that the discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination/bromination is permitted.

7. The discharge to the Pacific Ocean from the Encina Power Plant in excess of 863.142 MGallons/Day is prohibited unless the discharger obtains revised waste discharge requirements authorizing an increased flowrate.

B. DISCHARGE SPECIFICATIONS

1. The following effluent limitations apply to the combined discharge of once-through (non-contact) cooling water, low volume wastes, metal cleaning wastes and stormwater runoff from the Encina Power Plant to the Pacific Ocean:

Parameter	Units[2/]	6-Month Median	Daily Maximum	Instantaneous Maximum
pH	pH units	Within the limits of 6.0 to 9.0		
Turbidity[7/]	NTU	75	100	225
Acute Toxicity	TUa[3/]	1.5	2.0	--
Arsenic	ug/l	--	--	1,300
Cadmium	ug/l	--	--	170
Chromium (Hexavalent)[4/]	ug/l	--	--	330
Copper	ug/l	--	--	460
Lead	ug/l	--	--	330
Mercury	ug/l	--	--	6.6
Nickel	ug/l	--	--	830
Zinc	ug/l	--	--	3,200
Total Chlorine Residual[5/]	ug/l	33	132	200
Chronic Toxicity	TUc[3/]	--	16.5	--

2. Waste discharged[1/] from the Encina Power Plant to the ocean[1/] must be essentially free of:

   a. Material that is floatable or will become floatable upon discharge.

   b. Settleable material or substances that may form sediments which will degrade[1/] benthic communities or other aquatic life.

   c. Substances which will accumulate to toxic levels in marine waters, sediments or biota.

   d. Substances that significantly[1/] decrease the natural[1/] light to benthic communities and other marine life.

e. Materials that result in aesthetically undesirable discoloration of the ocean[1/] surface.

3. All waste treatment, containment and disposal facilities shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency.

4. All waste treatment, containment and disposal facilities shall be protected against erosion, overland runoff and other impacts resulting from a 100-year frequency 24-hour storm.

5. Collected screenings, sludges, and other solids removed from liquid wastes, shall be disposed of in accordance with all applicable requirements.

6. The Encina Power Plant discharge of elevated temperature wastes to the ocean shall comply with limitations necessary to assure protection of beneficial uses and designated areas of special biological significance.

7. At all times except during heat treatment operations, as described in Finding Nos. 16 and 17 of this order, the temperature of the combined discharge from the Encina Power Plant to the ocean shall not average more than 20°F (11.1°C) above that of the incoming lagoon water during any 24-hour period. The combined discharge shall not at any time exceed 25°F (13.9°C) above that of the incoming Lagoon water.

8. During heat treatment, heat added to the cooling water shall not cause the temperature of the combined discharge to the ocean to exceed 120°F (48.9°C). This maximum temperature of 120°F shall not be maintained for more than two hours.

9. Scheduling of heat treatment operations shall be based on attachment 4: Heat Treatment Decision diagram.

10. In the event the discharger's request for a CWA Section 316(a) exception to the Thermal Plan's requirements is not granted by the Regional Board, then the Encina Power Plant Unit 5 discharge shall comply with the following new source performance standards contained in the Thermal Plan:

    (a) Elevated temperature waste shall be discharged to the open ocean away from the shoreline to achieve dispersion through the vertical water column.

    (b) The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4°F at (a) the shoreline, (b) the surface of any ocean substrate, or (c) the ocean surface beyond 1,000 feet from the discharge system. The surface temperature limitation shall be maintained at least 50 percent of the duration of any complete tidal cycle.

11. Any discharge of Low Volume Wastes to the once-through cooling water flow containing pollutants in excess of the following effluent limitations is prohibited.

Parameter	Units[2/]	Monthly Average	Daily Maximum	Instantaneous Maximum
Total Suspended Solids	mg/l	30.0	100.0	100.0
Grease and Oil	mg/l	15.0	20.0	20.0

12. Any discharge of Metal Cleaning Wastes to the once-through cooling water flow containing pollutants in excess of the following effluent limitations is prohibited.

Parameter	Units[2/]	Monthly Average	Daily Maximum	Instantaneous Maximum
Total Suspended Solids	mg/l	30.0	100.0	100.0
Grease and Oil	mg/l	15.0	20.0	20.0
Copper, total	mg/l	1.0	1.0	1.0
Iron, total	mg/l	1.0	1.0	1.0

13. The combined discharge from all Encina Power Plant In-Plant Waste sources, taken together, to the once-through cooling water flow containing pollutants in excess of the following effluent limitations is prohibited:

[6/](These are maximum limitations that are calculated using the procedure outlined on page 13 of the Ocean Plan using an initial dilution value of 15.5 and a maximum flowrate of 863.169 MGD. For compliance purposes, the actual limit shall be the determined by the following formula:

$L_f = (Q_a/Q_m)\ L_t$

L_f = final limit used for compliance determination
Q_a = combined discharge flowrate at the time of sampling
Q_m = 863.169 MGD
L_t = any limit in the following tables with units "lb/Day")

Parameter	Units[2/]	6-Month Median	Daily Maximum
Arsenic	lb/Day	620	3,500
Cadmium	lb/Day	120	480
Chromium (Hexavalent)[4/]	lb/Day	240	950
Copper	lb/Day	130	1,200
Lead	lb/Day	240	950
Mercury	lb/Day	5	19
Nickel	lb/Day	590	2,400
Selenium	lb/Day	1,800	7,100
Silver	lb/Day	70	320
Zinc	lb/Day	1,500	8,600
Cyanide	lb/Day	120	480
Ammonia (as N)	lb/Day	55,000	270,000
Phenolic Compounds (non-chlorinated)	lb/Day	3,100	14,000
Chlorinated Phenolics	lb/Day	120	500

Parameter	Units[2/]	30-day Average
Chlorobenzene	lb/Day	68,000
chromium (III)	lb/Day	23,000,000
dichlorobenzenes[1/]	lb/Day	610,000
1,1-dichloroethylene	lb/Day	840,000
Ethylbenzene	lb/Day	490,000
Nitrobenzene	lb/Day	580
Toluene	lb/Day	10,000,000
1,1,1-trichloroethane	lb/Day	64,000,000
1,1,2-trichloroethane	lb/Day	5,100,000
Benzene	lb/Day	700

Parameter	Units[2/]	30-day Average
Chloroform	lb/Day	15,000
1,4-dichlorobenzene	lb/Day	2,100
1,2-dichloroethane	lb/Day	15,000
Dichloromethane	lb/Day	53,000
1,2-diphenylhydrazine	lb/Day	19
Tetrachloroethylene	lb/Day	12,000
Trichloroethylene	lb/Day	3,200

Following is the only limit not based on mass that applies to the combined In-Plant waste streams. This limit should not be adjusted for the flowrate.

Parameter	Units	Monthly Average	Daily Maximum	Instantaneous Maximum
Total Suspended Solids	mg/l	30.0	100.0	100.0

14. The discharge of substances for which effluent limits are not established by this Order shall be prevented or, if the discharge cannot be prevented, minimized.

C. COOLING WATER INTAKE STRUCTURE SYSTEM SPECIFICATIONS

1. The discharger shall maintain velocities at design levels in front of the intake structure and routinely clean the bar racks at Encina Power Plant. The discharger shall rotate and clean intake screen assemblies as needed when the unit is in operation, for the purpose of maintaining intake water velocities as close as practical to design levels.

2. The discharger shall minimize once-through cooling water flow where possible when units are at reduced load or out of service, except as required to ensure equipment and personnel safety.

3. The discharger shall avoid sudden increases in once-through cooling water flow whenever possible.

D. RECEIVING WATER LIMITATIONS

1. The Encina Power Plant Discharge to the Pacific Ocean shall not by itself or jointly with any other discharge or discharges cause the following Ocean Plan water quality objectives to be violated. Compliance with these objectives shall be determined from samples collected at stations representative of the area within the waste field where initial[1/] dilution is completed.

   a. Bacterial Characteristics

      (1) Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Board, but including all kelp[1/] beds, the following bacterial objectives shall be maintained throughout the water column:

         (a) Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

         (b) The fecal coliform density, based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.

         The "Initial Dilution Zone" of wastewater outfalls shall be excluded from designation as "kelp beds" for purposes of bacterial standards, and Regional Boards should recommend extension of such exclusion zone where warranted to the SWRCB (for consideration under Chapter VI.F.). Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards

      (2) At all areas where shellfish[1/] may be harvested for human consumption, as determined by the Regional Board, the following bacterial objectives shall be maintained throughout the water column:

The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

b. Physical Characteristics

(1) Floating particulates and grease and oil shall not be visible.

(2) The discharge of waste[1/] shall not cause aesthetically undesirable discoloration of the ocean[1/] surface.

(3) Natural[1/] light shall not be significantly[1/] reduced at any point outside the initial dilution zone as the result of the discharge of waste.

(4) The rate of deposition of inert solids and the characteristics of inert solids ocean[1/] sediments shall not be changed such that benthic communities are degraded[1/].

c. Chemical Characteristics

(1) The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste[1/] materials.

(2) The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

(3) The dissolved sulfide concentration of waters in and near sediments shall not be significantly1/ increased above that present under natural conditions.

(4) The concentration of substances set forth in Chapter IV, Table B, of the Ocean Plan in marine sediments shall not be increased to levels that would degrade[1/] indigenous biota.

(5) The concentration of organic materials in marine sediments shall not be increased to levels that would degrade[1/] marine life.

(6) Nutrient materials shall not cause objectionable aquatic growths or degrade[1/] indigenous biota.

d. Biological Characteristics

(1) Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded[1/].

(2) The natural taste, odor, and color of fish, shellfish[1/], or other marine resources used for human consumption shall not be altered.

(3) The concentration of organic materials in fish, shellfish[1/], or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

2. The Encina Power Plant discharge to the ocean shall not by itself or jointly with any other discharge(s) cause the following Ocean Plan water quality objectives to be exceeded in ocean waters upon completion of initial[1/] dilution, except that limitations indicated for radioactivity shall apply directly to the undiluted waste[1/] effluent:

Parameter	Units[2/]	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic	ug/l	8	32	80
Cadmium	ug/l	1	4	10
Chromium (Hexavalent)[4/]	ug/l	2	8	20
Copper	ug/l	3	12	30
Lead	ug/l	2	8	20
Mercury	ug/l	0.04	0.16	0.4
Nickel	ug/l	5	20	50
Selenium	ug/l	15	60	150
Silver	ug/l	0.7	2.8	7
Zinc	ug/l	20	80	200
Cyanide	ug/l	1	4	10
Total Chlorine Residual[5/]	ug/l	2	8	60
Ammonia (as N)	ug/l	600	2400	6000
Chronic Toxicity	TUc	--	1	--
Phenolic Compounds (non-chlorinated)	ug/l	30	120	300
Chlorinated Phenolics	ug/l	1	4	10
Endosulfan	ng/l	9	18	27

Parameter	Units[2/]	6-Month Median	Daily Maximum	Instantaneous Maximum
Endrin	ng/l	2	4	6
HCH[1/]	ng/l	4	8	12

Parameter	Units[2/]	30-day Average
Acrolein	ug/l	220
Antimony	mg/l	1.2
bis(2-chloroethoxy) methane	ug/l	4.4
bis(2-chloroisopropyl) ether	mg/l	1.2
Chlorobenzene	ug/l	570
chromium (III)	mg/l	190
di-n-butyl phthalate	mg/l	3.5
Dichlorobenzenes[1/]	mg/l	5.1
1,1-dichloroethylene	mg/l	7.1
diethyl phthalate	mg/l	33
dimethyl phthalate	mg/l	820
4,6-dinitro-2-methylphenol	ug/l	220
2,4-dinitrophenol	ug/l	4.0
Ethylbenzene	mg/l	4.1
Fluoranthene	ug/l	15
Hexachlorocyclopentadiene	ug/l	58
Isophorone	mg/l	150
Nitrobenzene	ug/l	4.9
Thallium	ug/l	14
Toluene	mg/l	85
1,1,2,2-tetrachloroethane	mg/l	1.2
Tributyltin	ng/l	1.4
1,1,1-trichloroethane	mg/l	540
1,1,2-trichloroethane	mg/l	43
Acrylonitrile	ug/l	0.10
Aldrin	ng/l	0.022

Parameter	Units[2/]	30-day Average
Benzene	ug/l	5.9
Benzidine	ng/l	0.069
Beryllium	ng/l	33
bis(2-chloroethyl) ether	ug/l	0.045
bis(2-ethylhexyl) phthalate	ug/l	3.5
carbon tetrachloride	ug/l	0.90
Chlordane[1/]	ng/l	0.023
Chloroform	mg/l	0.13
DDT[1/]	ng/l	0.17
1,4-dichlorobenzene	ug/l	18
3,3-dichlorobenzidine	ng/l	8.1
1,2-dichloroethane	mg/l	0.13
Dichloromethane	mg/l	0.45
1,3-dichloropropene	ug/l	8.9
Dieldrin	ng/l	0.04
2,4-dinitrotoluene	ug/l	2.6
1,2-diphenylhydrazine	ug/l	0.16
Halomethanes[1/]	mg/l	0.13
Heptachlor[1/]	ng/l	0.72
Hexachlorobenzene	ng/l	0.21
Hexachlorobutadiene	ug/l	14
Hexachloroethane	ug/l	2.5
N-nitrosodimethylamine	ug/l	7.3
N-nitrosodiphenylamine	ug/l	2.5
PAHs[1/]	ng/l	8.8
PCBs[1/]	ng/l	0.019
TCDD equivalents[1/]	pg/l	0.0039
Tetrachloroethylene	ug/l	99
Toxaphene	ng/l	0.21
Trichloroethylene	ug/l	27
2,4,6-trichlorophenol	ug/l	0.29

Parameter	Units[2/]	30-day Average
vinyl chloride	ug/l	36

E. PROVISIONS

1. Additional reporting requirements are found in Attachment 7: Standard Provisions and Attachment 8: Sections of 40 CFR Incorporated by Reference.

2. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act or amendments thereto, the Regional Board may modify this Order in accordance with the more stringent standards.

3. Compliance with the Best Management Practices contained in the April 9, 1999 "Application for Renewal of the NPDES Permit for the San Diego Gas and Electric Encina Power Plant" is a condition of this permit. A copy of the BMP program shall be maintained at the Encina Facility and shall be readily available to operating personnel at all times.

4. In accordance with CWA Sections 316(a) and 316(b), the discharger shall comply with any applicable standards and guidelines which may be established by USEPA pursuant to these sections. The discharger shall conduct such studies deemed necessary by the Executive Officer to demonstrate compliance with CWA Sections 316(a) and 316(b).

5. The discharger must comply with all conditions of this order. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

6. Neither the treatment nor discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.

7. The discharger shall allow the Regional Board, or an authorized representative thereof, or any authorized representative of the USEPA, upon presentation of credentials and other documents as may be required by law, to:

   a. Enter upon the Discharger's premises where a regulated facility or activity is located and conducted, or where

records must be kept under the conditions of this Order;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Order, and;

d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the Clean Water Act or California Water Code, any substances or parameters at any location.

8. The Discharger shall, at all times, properly operate and maintain all facilities and systems or treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

F. REPORTING REQUIREMENTS

1. Additional reporting requirements are found in Attachment 7: Standard Provisions and Attachment 8: Sections of 40 CFR Incorporated by Reference.

2. The discharger shall notify the Executive Officer and the Long Beach and San Diego offices of the California Department of Fish and Game, where practicable, at least 48 hours in advance of any heat treatment at the Encina Power Plant.

3. The discharger shall comply with Monitoring and Reporting Program No. 2000-03. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2000-03.

4. The discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the discharger becomes aware of the circumstances. The written submission shall contain a

description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following shall be included as information which must be reported within 24 hours under this reporting requirement:

a. Any unanticipated bypass which exceeds any effluent limitation in this Order.

b. Any discharge of treated or untreated wastewater resulting from pipeline breaks, obstruction, surcharge or any other circumstance.

c. Any upset which exceeds any effluent limitation in this Order.

d. Violation of a daily maximum effluent limitation as specified in this Order.

e. Any spills of polychlorinated biphenyl compounds (PCB). The spill residue shall be drummed and disposed of in a manner which is compliance with all federal, state and local laws and regulations. Written notification shall include pertinent information explaining reasons for the spill and shall indicate what steps were taken to prevent the problem from recurring.

f. Any violation of the effluent limitations for acute or chronic toxicity as specified in this Order.

g. Any violation of the prohibitions of this Order.

5. The Discharger shall file a new Report of Waste Discharge not less than 180 days prior to any material change or proposed change in the character, location, or volume of the discharge, including but not limited to, the following:

a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.

b. Significant change in disposal method, e.g., changes from land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

c. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed

from the original area, potentially causing different water quality or nuisance problems.

d. Increase in flow beyond that specified in this order.

6. The Discharger shall furnish to the Executive Officer within a reasonable time, any information that the Executive Officer may require to determine whether cause exists for modifying, revoking and reissuing, or terminating this order. The Discharger shall also furnish to the Executive Officer, upon request, copies of records required to be kept by this Order.

7. This Order expires on February 9, 2005. If the Discharger wishes to continue any activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain new waste discharge requirements. The Discharger must file a complete Report of Waste Discharge in accordance with Title 23, California Code of Regulations (CCR) and EPA forms 1 and 2C required by 40 Code of Federal Regulations (CFR) 122, not later than 180 days in advance of the expiration date of this Order as application for issuance of new waste discharge requirements.

8. All applications, reports, or information submitted to the Regional Board Executive Officer shall be signed and certified as follows:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

9. The Discharger shall submit reports and provide notifications as required by this order in accordance with the following:

(a) Reports required to be submitted to the Regional Board Executive Officer shall be sent to:

California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd, Suite A
San Diego, California 92124-1324

Notifications required to be provided to the Regional Board Executive Officer shall be made to:

Phone - (858) 467-2952

Fax - (858) 571-6972

(b) Reports required to be submitted to the U.S. Environmental Protection Agency shall be sent to:

U.S. Environmental Protection Agency
Region IX
Permits Issuance Section
75 Hawthorne Street (W-5-1)
San Franciso, California 94105

(c) Notifications required to be provided to the California Department of Fish and Game shall be made to:

California Department of Fish and Game
4949 View Ridge Ave.
San Diego, CA 92123

Phone - (858) 467-4218
Fax - (858) 467-4299

G. NOTIFICATIONS

1. California Water Code Section 13263(g) states:

"No discharge of waste into waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All such discharges of waste into waters of the state are privileges, not rights."

2. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

3. This Order shall become effective 10 days after the date of its adoption provided the Regional Administrator, USEPA, has no objection. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.

4. This Order supersedes Order No. 94-59.

H. SPECIAL CONDITIONS

1. <u>pH Study</u>

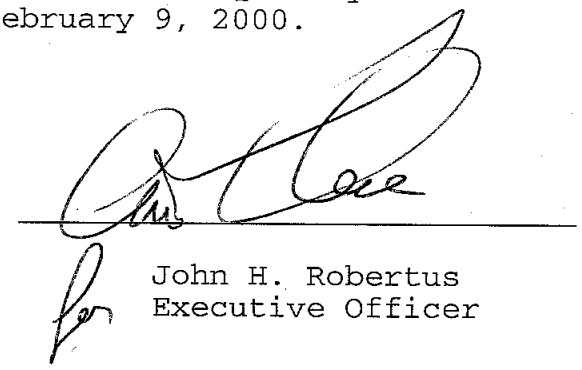
Phase I - Determine if any statistically significant (i.e. 95% confidence) difference between the intake and outfall pH actually exists. Submit a report to the Regional Board demonstrating the findings of this study within 6 months after adoption of this Order. Should a statistically significant difference be identified, commence to Phase II. If not, the study is deemed complete.

Phase II - Develop, if necessary, a study plan and submit the Study Plan for Regional Board approval within 4 months after submittal of the Phase I report.

Phase III - Implement Study Plan. Phase III shall be complete within 12 months after Regional Board approves the study plan.

Phase IV - Submit study results within 3 months after Study completion.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on February 9, 2000.



for John H. Robertus
Executive Officer

I. Endnote references for Order No. 00-03 (NPDES No. CA0001350), WASTE DISCHARGE REQUIREMENTS FOR CABRILLO POWER I LLC, ENCINA POWER PLANT, SAN DIEGO COUNTY.

1. See Appendix I of the Ocean Plan for definition of terms.

2. Units are defined as follows:

   mg/l = milligrams per liter
   ug/l = micrograms per liter
   ng/l = nanograms per liter
   NTU = Nephelometric Turbidity Units
   lb/Day = pounds per day
   ml/l = milliliters per liter

3. Toxicity units are defined as follows.

   Acute Toxicity

   a. Acute Toxicity (TUa)

      Expressed in Toxic Units Acute (TUa)

      $$TUa = \frac{100}{96\text{-hr LC } 50\%}$$

   b. Lethal Concentration 50% (LC 50)

      LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard test species. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

      When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

      $$TUa = \frac{\log (100 - S)}{1.7}$$

      S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

   Chronic Toxicity

a. Chronic Toxicity (TUc)

Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

b. No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Appendix II of the Ocean Plan.

4. The discharger may at its option meet this limitation as a total chromium limitation.

5. In samples obtained from marine, saline, or other waters containing bromine, total chlorine residual limitations shall apply to total residual oxidants.

a. Discharge Specification B.1

(1) The total chlorine residual effluent limitation shown for 6-month median and daily maximum discharges are for continuous chlorine/bromine sources such as are present in R.O. pretreatment.

(2) The instantaneous maximum effluent limitation shall be the lower of the following:

(a) an effluent limitation calculated using the procedure described in Findings 48 and 49 and water quality objectives determined through the use of the following equation:

$$\log y = -0.43(\log x) + 1.8 \quad \text{(Equation 3)}$$

where: y = the water quality objective (in ug/l) to apply when chlorine/bromine is being discharged;

x = the duration of uninterrupted chlorine/bromine discharge in minutes; or,

(b) the USEPA BAT effluent limitation contained in 40 CFR 423 (0.20 mg/l).

b. Receiving Water Limitation D.2

In Receiving Water Limitation D.2, objectives for total chlorine residual are for continuous chlorine/bromine discharges. Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined using Equation 3 above.

6. For compliance purposes, the actual limit shall be the determined by the following formula:

$L_f = (Q_a/Q_m)\ L_t$

L_f = final limit used for compliance determination

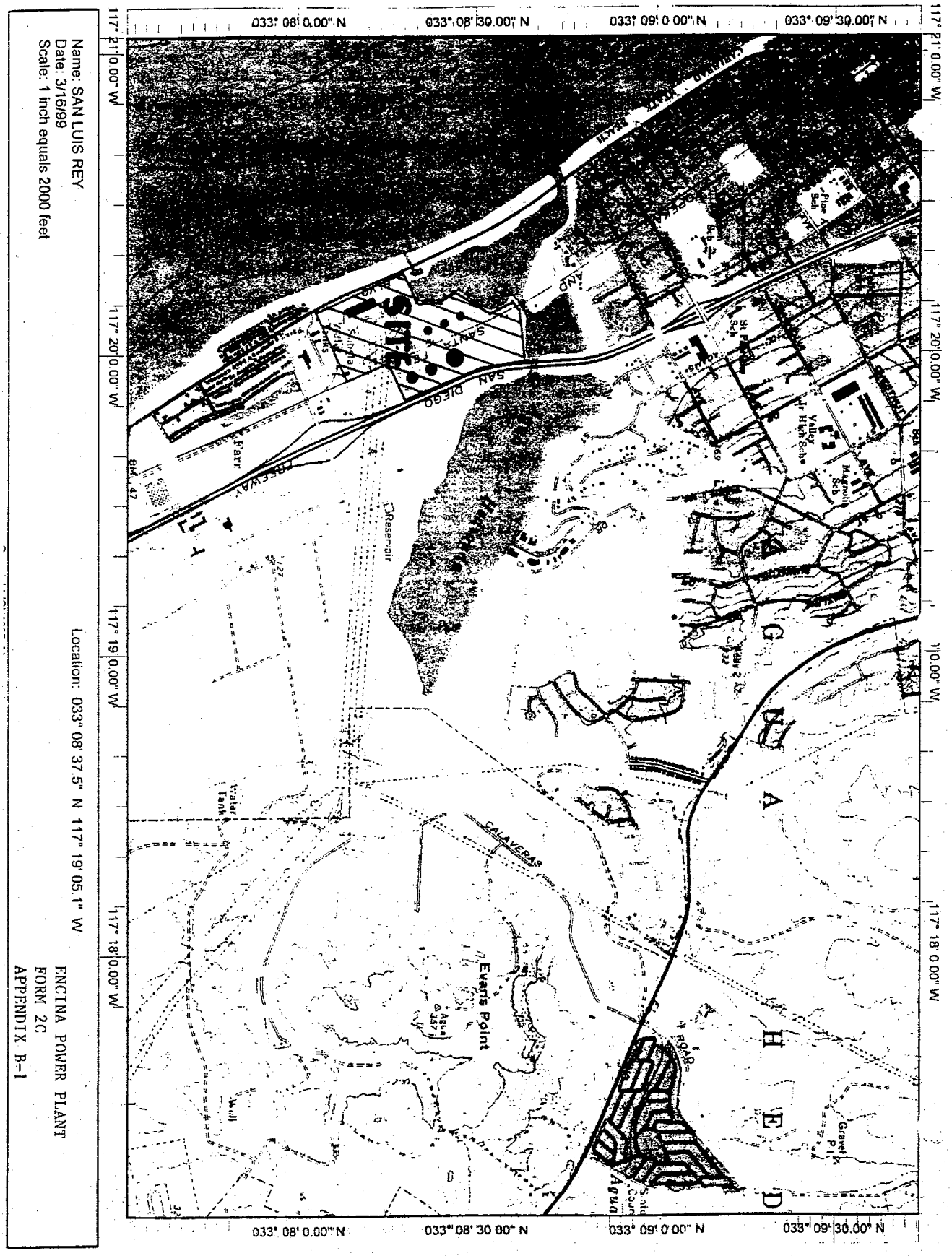
Q_a = combined discharge flowrate at the time of sampling

Q_m = 863.169 MGD

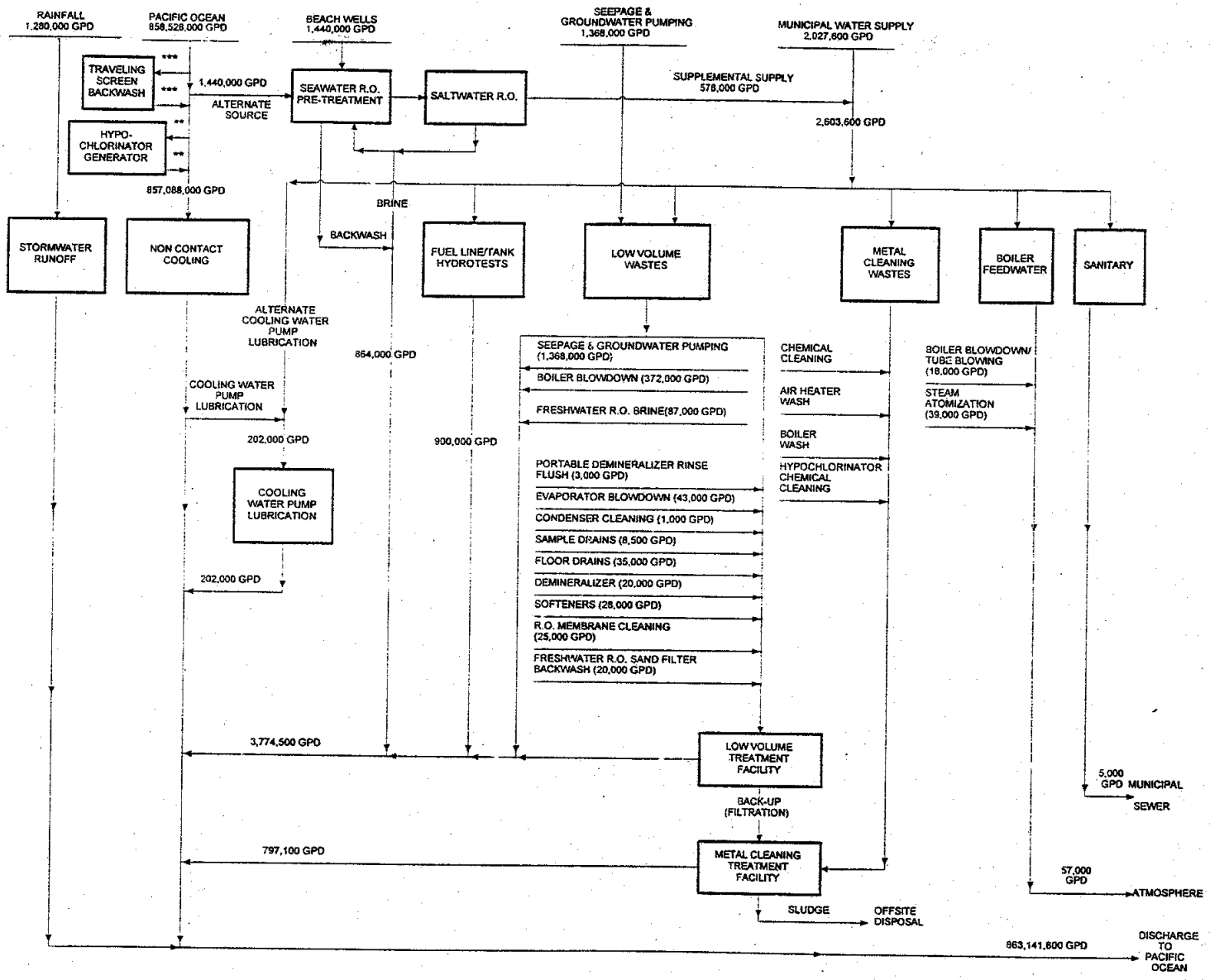
L_t = any limit from section B.13 with units "lb/Day"

7. Compliance with the turbidity limitation shall be based on the difference (delta) between the intake and discharge values. Therefore, the incremental contribution to turbidity caused by the operation of the Encina Power Plant and onsite discharges (including stormwater) must be less than the values stated in discharge specification B.1.

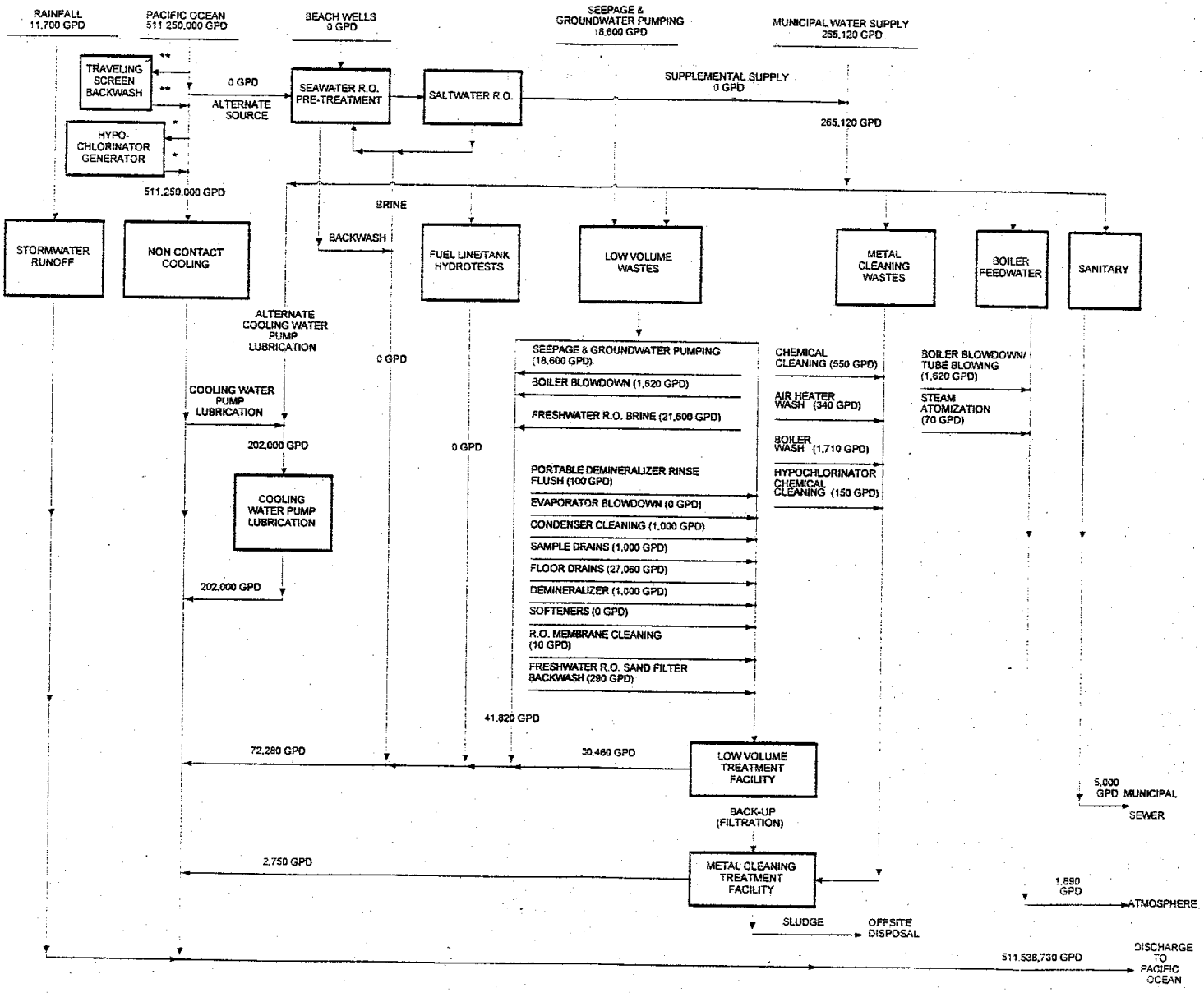
J. Attachment 1: Site Diagram



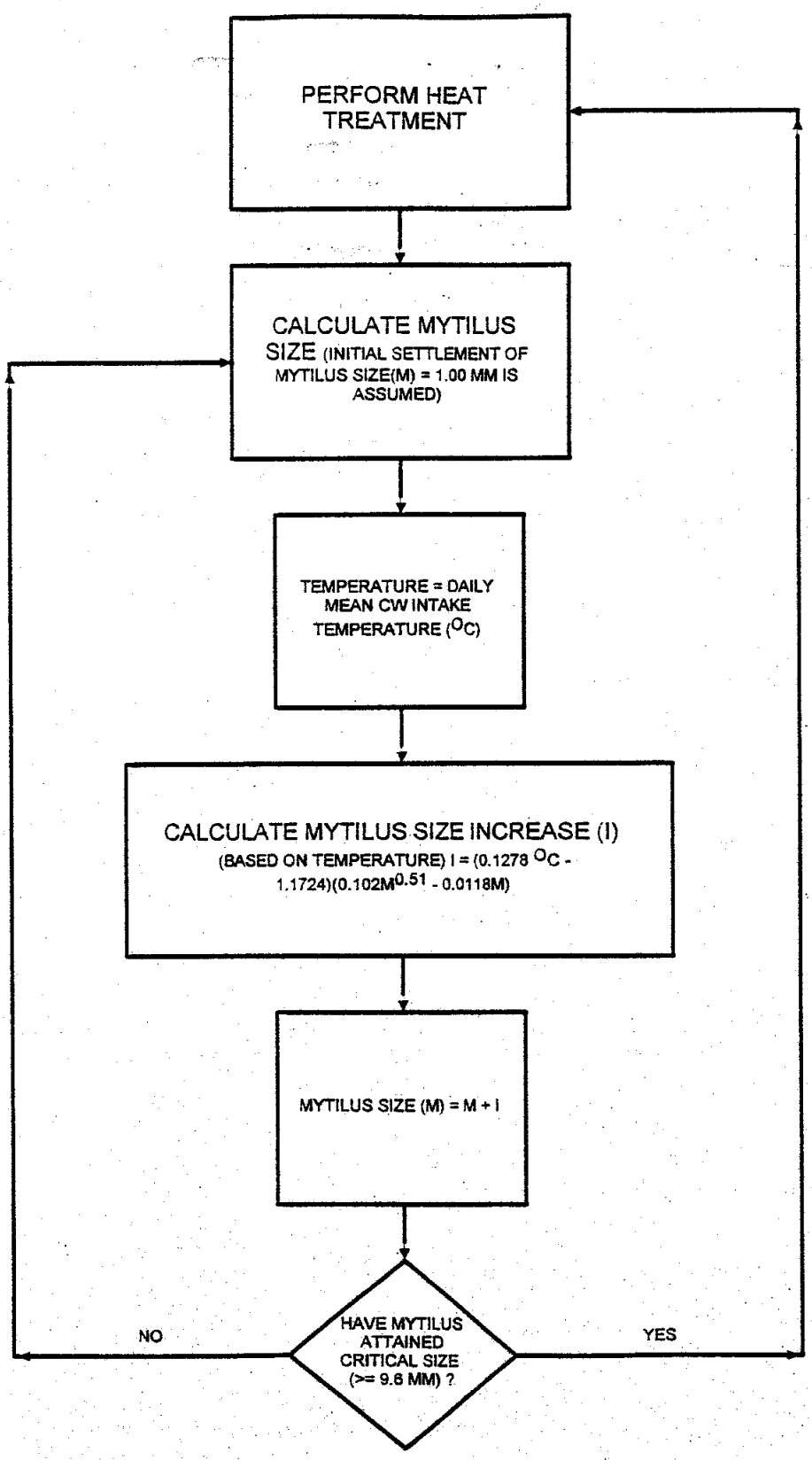
K. Attachment 2: Water Flow Diagram with Maximum Flowrates



L. Attachment 3: Water Flow Diagram with Average Flowrates



M. Attachment 4: Heat Treatment Decision Diagram



N. ATTACHMENT 5: CALIFORNIA OCEAN PLAN PROHIBITIONS

1. Hazardous substances

The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste[1#] into the ocean[1#] is prohibited.

2. Areas of special biological significance

Waste[1#] shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas.

3. Sludge

Pipeline discharge of sludge to the ocean[1#] is prohibited by federal law; the discharge of municipal and industrial waste[1#] sludge directly to the ocean[1#] or into a waste stream that discharges to the Ocean[1#], is prohibited by this Plan. The discharge of sludge digester supernatant directly to the ocean, or to a waste[1#] stream that discharges to the ocean[1#] without further treatment, is prohibited.

It is the policy of the SWRCB that the treatment, use and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment. Therefore, if federal law is amended to permit such discharge, which could affect California waters, the SWRCB may consider requests for exceptions to this section under Chapter VI, F. of this plan, provided further that an Environmental Impact Report on the proposed project shows clearly that any available alternative disposal method will have a greater adverse environmental impact than the proposed impact.

4. By-passing

The by-passing of untreated wastes[1#] containing concentrations of pollutants in excess of those of Table A or Table B (of the 1997 Ocean Plan) to the Ocean[1#] is prohibited.

[1#] See Appendix I of the Ocean Plan for definition of terms.

O. ATTACHMENT 6: BASIN PLAN DISCHARGE PROHIBITIONS

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person as defined by Section 13050(c) of the California Water Code and to any person who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in California Water Code Section 13050, is prohibited.

2. The discharge of waste to land, except as authorized by waste discharge requirements or the terms described in California Water Code Section 13264, is prohibited.

3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in California Water Code §13376) is prohibited

4. The discharge of treated or untreated waste to lakes or reservoirs used for municipal water supply, or to inland surface water tributaries thereto, is prohibited.

5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.

6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the Regional Board.

7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.

8. Any discharge to a storm water conveyance system that is not composed entirely of storm water is prohibited unless authorized by the Regional Board. (The federal regulations, 40 CFR 122.26(b)(13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR 122.26(b)(2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharge resulting from fire fighting activities.) (§122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992).

9. The authorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.

10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.

11. The discharge of radioactive waste amenable to alternative methods of disposal into the waters of the state is prohibited.

12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.

13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.

14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.

15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.

16. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.

17. The discharge of treated sewage from vessels to portion of San Diego Bay that are less than 30 feet deep at mean lower low water (MLLW) is prohibited.

18. The discharge of treated sewage from vessels, which do not have a properly functioning US Coast Guard certified Type I or Type II marine sanitation device, to portions of San

Diego Bay that are greater than 30 feet deep a mean lower low water (MLLW) is prohibited.

P. ATTACHMENT 7: STANDARD PROVISIONS

1. The following sections of 40 CFR are attached and incorporated into this permit by reference:

   (a) 122.5 *Effect of a permit* (Attachment 8)

   (b) 122.21 *Application for a permit* (Attachment 8)

   (c) 122.22 *Signatories to permit applications and reports* (Attachment 8)

   (d) 122.41 *Conditions applicable to all permits* (Attachments 8)

   (e) 122.61 *Transfer of permits* (Attachment 8)

   (f) 122.62 *Modification or revocation of permits* (Attachment 8)

   (g) 122.63 *Minor modifications of permits* (Attachment 8)

   (f) 122.64 *Termination of permits* (Attachment 8)

2. *Compliance with permit*: The discharger must comply with all conditions of this Order. Any permit non-compliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a report of waste discharge submitted in application for permit modification and reissuance.

3. *Review and revision of permit*: Upon application by any affected person, or on its own motion, the SDRWQCB may review and revise this permit. [CWC 13263(e); also see Standard Provision 1.(f)]

4. *Termination or modification of permit*: This permit may be terminated or modified for cause, including, but not limited to, all of the following:

   (a) Violation of any condition contained in this permit.

   (b) Obtaining this permit by misrepresentation, or failure to disclose fully all relevant facts.

   (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge. [CWC 13381; also see Standard Provisions 1.(d) [40 CFR 122.41 (f)], 1.(f) and 1.(h)]

(d) The executive officer determines that continued discharges may cause unreasonable degradation of the environment.

(e) The issuance of a toxic effluent standard or prohibition under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such a standard or prohibition is more stringent than any limitation contained in this permit.

5. *Material change*: Not less than 180 days prior to any material change in the character, location, volume, or amount of waste discharge, the Discharger shall submit a technical report describing such changes. Such changes include but are not limited to the following:

(a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.

(b) Significant change in disposal method, e.g., change from land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.

(d) Increase in flow beyond that specified in the waste discharge requirements.

(e) Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CWC 13372, 13376, 13264, 23 CCR 2210]

(e) Any substantial change in the amount or characteristics of pollutants used, handled, stored, or generated.

(f) Any new discharge of pollutants or new potential pollutant source.

(g) Other circumstances which could result in a material change in the character, amount, or location of discharges. [CWC 13372, 13264,23 CCR 2210]

(h) Any planned changes to the permitted facility or activity which may result in noncompliance with the requirements of this order.

6. *Transfers*: When this permit is transferred to a new owner or operator, such requirements as may be necessary under the California Water Code may be incorporated into this permit. (Also see Standard Provision 1.(d) [40 CFR 122.41 (l)(3)] and Standard Provision 1.(e).)

7. *Conditions not stayed*: The filing of a request by the Discharger for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.

8. *Monitoring and Reporting Program*: The Discharger shall conduct monitoring and submit reports in accordance with Monitoring and Reporting Program (MRP) associated with this order. [CWC 13267 & 13383, 23 CCR 2230, 40 CFR 122.43(a), 122.44(l)(4), 122.48]

9. *Availability*: A copy of this Order shall be kept at a readily accessible location on-site and shall be available to on-site personnel at all times.

10. *Duty to minimize or correct adverse impacts*: The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal that has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of any permit noncompliance.

11. *Responsibilities, liabilities, legal action, penalties*: The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the Clean Water Act. [CWC 13385, 13387]

    Nothing in this Order shall be construed to protect the Discharger from its liabilities under federal, state, or local laws.

    Except as provided for in 40 CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the Discharger from civil or criminal penalties for noncompliance.

    Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities, or penalties to which the Discharger is or may be subject to under Section 311 of the CWA.

    Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or

regulation under authorizing preserved by Section 510 of the CWA.

12. *Noncompliance*: Any noncompliance with this permit constitutes violation of the California Water Code and is grounds for denial of an application for permit modification. (Also see Standard Provision 1.(d) [40 CFR 122.41(a)])

13. *Discharge is a privilege*: No discharge of waste into waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights. {CWC 13263(g)]

14. *Permittee*: For the purposes of this permit, the term "permittee" used in parts of 40 CFR incorporated into this permit by reference and/or applicable to this permit shall have the same meaning as the term "Discharger" used elsewhere in this permit.

15. *Director*: For the purposes of this permit, the term "Director" used in parts of 40 CFR incorporated into this permit by reference and/or applicable to this permit shall have the same meaning as the term "SDRWQCB" used elsewhere in this permit, except that in 40 CFR 122.41(h) & (I), "Director" shall mean "SDRWQCB, SWRCB, and USEPA."

16. *Effective date*: This Order shall become effective ten days after the date of its adoption provided the USEPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.

17. *Expiration*: This permit expires on February 9, 2005 [40 CFR 122.43, 122.44(h), 122.46]

18. *Continuation of expired permit*: After this permit expires, the terms and conditions of this permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits are complied with. [40 CFR 122.6, 23 CCR 2235.4]

19. *Applications*: Any application submitted by the Discharger for reissuance or modification of this permit shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the California Water Code and the California Code of Regulations.

20. *Confidentiality*: Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in

application for this permit will be considered confidential, and all such information and documents shall be available for review by the public at the offices of the SDRWQCB.

21. *Severability*: The provisions of this order are severable, and if any provision of this order, or the application of any provisions of this order to any circumstance, is held invalid, the application of such provision(s) to other circumstances and the remainder of this order shall not be affected thereby.

22. *Discharge Monitoring Quality Assurance (DMQA) Program*: The~~n~~ Discharger shall conduct appropriate analyses on any sample provided by EPA as part of the SMQA program. The results of such analyses shall be submitted to EPA's SMQA manager. [SWRCB/USEPA 106 MOA]

23. *Pollution, Contamination, Nuisance*: The handling, transport, treatment, or disposal of waste or the discharge of waste to waters of the state in a manner which causes or threatens to cause a condition of pollution, contamination, or nuisance, as those terms are defined in CWC 13050, is prohibited.

24. *Additional Reporting Requirements*: [40 CFR 122.42(a)] In addition to the reporting requirements under Standard Provision 1.(d) [40 CFR 122.41 (1)], all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the SDRWQCB as soon as they know or have reason to believe:

    (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

        (a) One hundred micrograms per liter (100 ug/l);

        (b) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2, 4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

        (c) Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge submitted in application for this order.

        (c) The level established bye the SDRWQCB in accordance with 40 CFR 122.44(f).

    (2) That any activity has occurred or will occur~~red~~ which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not

limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

(a) Five hundred micrograms per liter (500 ug/l)

(b) One milligram per liter (1 mg/l) for antimony;

(c) Ten (10) times the maximum concentration value reported for that pollutant in the report of waste discharge submitted in application for this Order: or,

(d) The level established by the SDRWQCB in accordance with 40 CFR 122.44(f).

25. Confidential Information and Public Access: Except for data determined to be confidential under 40 CFR 122.7, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region. As required by the Clean Water Act, Reports of Waste Discharge, this Order, and effluent data shall not be considered confidential.

26. As is specified in California Water Code section 13267, the discharger shall furnish to the Executive Officer, State Board Executive Officer, or USEPA, within a reasonable time, any information which the Executive Officer, State Board Executive Director, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Executive Officer, State Board Executive Director, or USEPA, upon request, copies of records required to be kept by this Order.

27. *Report Submittal:* The discharger shall submit reports and provide notifications as required by this Order in accordance with the following:

a. Reports required to be submitted to the Executive Officer shall be sent to:

Surface Water Unit
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd, Suite A
San Diego, California 92124-1324

Notifications required to be provided to the Executive Officer shall be made to:

Phone - (858) 467-2952 or
Fax - (858) 571-6972

b. Reports required to be submitted to the USEPA shall be sent to:

U.S. Environmental Protection Agency
Region IX
Permits Issuance Section
75 Hawthorne Street (W-5-1)
San Francisco, California 94105

c. Notifications required to be provided to the California Department of Fish and Game shall be made to:

San Diego Office

Phone - (858) 467-4218
Fax - (858) 467-4299

Q. ATTACHMENT 8: SECTIONS OF 40 CFR INCORPORATED BY REFERENCE

40 CFR 122.5 Effect of a permit.
40 CFR 122.5(a)
(a) Applicable to State programs, see §123.25.
40 CFR 122.5(a)(1)
(1) Except for any toxic effluent standards and prohibitions imposed under section 307 of the CWA and standards for sewage sludge use or disposal" under §405(d) of the CWA, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with sections 301, 302, 306 , 307, 318, 403, and 405(a)-(b) of CWA. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§122.62 and 122.64.
40 CFR 122.5(a)(2)
(2) Compliance with a permit condition which implements a particular "standard for sewage sludge use or disposal" shall be an affirmative defense in any enforcement action brought for a violation of that "standard for sewage sludge use or disposal" pursuant to sections 405(e) and 309 of the CWA.
40 CFR 122.5(b)
(b) Applicable to State programs, See §123.25. The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.
40 CFR 122.5(c)
(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.
40 CFR 122.21 Application for a permit (applicable to State programs, see §123.25).
40 CFR 122.21(a)
(a) Duty to apply. Any person who discharges or proposes to discharge pollutants or who owns or operates a "sludge- only facility" and who does not have an effective permit, except persons covered by general permits under §122.28, excluded under §122.3, or a user of a privately owned treatment works unless the Director requires otherwise under §122.44(m), shall submit a complete application (which shall include a BMP program if necessary under 40 CFR 125.102) to the Director in accordance with this section and part 124.
40 CFR 122.21(b)
(b) Who applies? When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit.
40 CFR 122.21(c)
(c) Time to apply.
40 CFR 122.21(c)(1)
(1) Any person proposing a new discharge, shall submit an application at least 180 days before the date on which the discharge is to commence, unless permission for a later date has been granted by the Director. Facilities proposing a new discharge of storm water associated with industrial activity shall submit an application 180 days before that facility commences industrial activity which may result in a discharge of

storm water associated with that industrial activity. Facilities described under §122.26(b)(14)(x) shall submit applications at least 90 days before the date on which construction is to commence. Different submittal dates may be required under the terms of applicable general permits. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 90 or 180 day requirements to avoid delay. See also paragraph (k) of this section and §122.26(c)(1)(i)(G) and (c)(1)(ii). New discharges composed entirely of storm water, other than those dischargers identified by §122.26(a)(1), shall apply for and obtain a permit according to the application requirements in §122.26(g).
[§122.21(c)(1) amended at 60 FR 17957, April 7, 1995; 60 FR 40235, Aug. 7, 1995]
40 CFR 122.21(c)(2)

(2) Permits under section 405(f) of CWA.

40 CFR 122.21(c)(2)(i)

(i) Any existing "treatment works treating domestic sewage" required to have, or requesting site-specific pollutant limits as provided in 40 CFR part 503, must submit the permit application information required by paragraph (d)(3)(ii) of this section within 180 days after publication of a standard applicable to its sewage sludge use or disposal practice(s). After this 180 day period, "treatment works treating domestic sewage" may only apply for site-specific pollutant limits for good cause and such requests must be made within 180 days of becoming aware that good cause exists.
[New §122.21(c)(2)(i) added at 58 FR 9413, Feb. 19, 1993]
40 CFR 122.21(c)(2)(ii)

(ii) Any "treatment works treating domestic sewage" with a currently effective NPDES permit, not addressed under paragraph (c)(2)(i) of this section, must submit the application information required by paragraph (d)(3)(ii) of this section at the time of its next NPDES permit renewal application. Such information must be submitted in accordance with paragraph (d) of this section.
[Former §122.21(c)(2)(i) revised and redesignated as new (ii) at 58 FR 9413, Feb. 19, 1993]
40 CFR 122.21(c)(2)(iii)

(iii) Any other existing "treatment works treating domestic sewage" not addressed under paragraphs (c)(2)(i) or (ii) of this section must submit the information listed in paragraphs (c)(2)(iii)(A)>(A)-(E) of this section, to the Director within 1 year after publication of a standard applicable to its sewage sludge use or disposal practice(s). The Director shall determine when such "treatment works treating domestic sewage" must apply for a permit.
40 CFR 122.21(c)(2)(iii)(A)

(A) Name, mailing address and location of the "treatment works treating domestic sewage;"
40 CFR 122.21(c)(2)(iii)(B)

(B) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public or other entity;

40 CFR 122.21(c)(2)(iii)(C)

(C) A description of the sewage sludge use or disposal practices (including, where applicable, the location of any sites where sewage sludge is transferred for treatment, use, or disposal, as well as the name of the applicator or other contractor who applies the sewage sludge to land, if different from the "treatment works treating domestic sewage," and the name of any distributors if the sewage sludge is sold or given away in a bag or similar enclosure for application to the land, if different from the "treatment works treating domestic sewage");

40 CFR 122.21(c)(2)(iii)(D)

(D) Annual amount of sewage sludge generated, treated, used or disposed (dry weight basis); and

40 CFR 122.21(c)(2)(iii)(E)

(E) The most recent data the "treatment works treating domestic sewage" may have on the quality of the sewage sludge.

[Former §122.21(c)(2)(ii) revised and redesignated as new (iii) at 58 FR 9413, Feb. 19, 1993]

40 CFR 122.21(c)(2)(iv)

(iv) Notwithstanding paragraphs (c)(2)(i), (ii), or (iii) of this section, the Director may require permit applications from any "treatment works treating domestic sewage" at any time if the Director determines that a permit is necessary to protect public health and the environment from any potential adverse effects that may occur from toxic pollutants in sewage sludge.

[New §122.21(c)(2)(iv) added at 58 FR 9413, Feb. 19, 1993]

40 CFR 122.21(c)(2)(v)

(v) Any "treatment works treating domestic sewage" that commences operations after promulgation of an applicable "standard for sewage sludge use or disposal" shall submit an application to the Director at least 180 days prior to the date proposed for commencing operations.

[Former §122.21(c)(2)(iii) redesignated as new (v) at 58 FR 9413, Feb. 19, 1993]

40 CFR 122.21(d)

(d) Duty to reapply.

40 CFR 122.21(d)(1)

(1) Any POTW with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

40 CFR 122.21(d)(2)

(2) All other permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that:

40 CFR 122.21(d)(2)(i)

(i) The Regional Administrator may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date; and

40 CFR 122.21(d)(3)

(3) (i) All applicants for EPA-issued permits, other than POTWs, new sources, and "sludge-only facilities," must complete Forms 1 and either 2b or 2c of the consolidated permit application forms to apply under §122.21 and paragraphs (f), (g), and (h) of this section.

40 CFR 122.21(d)(3)(ii)

(ii) In addition to any other applicable requirements in this part, all POTWs and other "treatment works treating domestic sewage," including "sludge-only facilities," must submit with their applications the information listed at 40 CFR 501.15(a)(2) within the time frames established in paragraph (c)(2) of this section.

40 CFR 122.21(e)

(e) Completeness. The Director shall not issue a permit before receiving a complete application for a permit except for NPDES general permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity. For EPA administered NPDES programs, an application which is reviewed under §124.3 is complete when the Director receives either a complete application or the information listed in a notice of deficiency.

40 CFR 122.21(f)

(f) Information requirements. All applicants for NPDES permits shall provide the following information to the Director, using the application form provided by the Director (additional information required of applicants is set forth in paragraphs (g) through (k) of this section).

40 CFR 122.21(f)(1)

(1) The activities conducted by the applicant which require it to obtain an NPDES permit.

40 CFR 122.21(f)(2)

(2) Name, mailing address, and location of the facility for which the application is submitted.

40 CFR 122.21(f)(3)

(3) Up to four SIC codes which best reflect the principal products or services provided by the facility.

40 CFR 122.21(f)(4)

(4) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

40 CFR 122.21(f)(5)

(5) Whether the facility is located on Indian lands.

40 CFR 122.21(f)(6)

(6) A listing of all permits or construction approvals received or applied for under any of the following programs:

40 CFR 122.21(f)(6)(i)

(i) Hazardous Waste Management program under RCRA.

40 CFR 122.21(f)(6)(ii)

(ii) UIC program under SDWA.

40 CFR 122.21(f)(6)(iii)
(iii) NPDES program under CWA.
40 CFR 122.21(f)(6)(iv)
(iv) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.
40 CFR 122.21(f)(6)(v)
(v) Nonattainment program under the Clean Air Act.
40 CFR 122.21(f)(6)(vi)
(vi) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.
40 CFR 122.21(f)(6)(vii)
(vii) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.
40 CFR 122.21(f)(6)(viii)
(viii) Dredge or fill permits under section 404 of CWA.
40 CFR 122.21(f)(6)(ix)
(ix) Other relevant environmental permits, including State permits.
40 CFR 122.21(f)(7)
(7) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the map area.
40 CFR 122.21(f)(8)
(8) A brief description of the nature of the business.
40 CFR 122.21(g)
(g) Application requirements for existing manufacturing, commercial, mining, and silvicultural dischargers. Existing manufacturing, commercial mining, and silvicultural dischargers applying for NPDES permits, except for those facilities subject to the requirements of §122.21(h) , shall provide the following information to the Director, using application forms provided by the Director.
40 CFR 122.21(g)(1)
(1) Outfall location. The latitude and longitude to the nearest 15 seconds and the name of the receiving water.
40 CFR 122.21(g)(2)
(2) Line drawing. A line drawing of the water flow through the facility with a water balance, showing operations contributing wastewater to the effluent and treatment units. Similar processes, operations, or production areas may be indicated as a single unit, labeled to correspond to the more detailed identification under paragraph (g)(3) of this section. The water balance must show approximate average flows at intake and discharge points and between units, including treatment units. If a water balance cannot be determined (for example, for certain mining activities), the applicant may provide instead a

pictorial description of the nature and amount of any sources of water and any collection and treatment measures.
40 CFR 122.21(g)(3)

(3) Average flows and treatment. A narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent for each outfall, including process wastewater, cooling water, and stormwater runoff; the average flow which each process contributes; and a description of the treatment the wastewater receives, including the ultimate disposal of any solid or fluid wastes other than by discharge. Processes, operations, or production areas may be described in general terms (for example, "dye-making reactor", "distillation tower"). For a privately owned treatment works, this information shall include the identity of each user of the treatment works. The average flow of point sources composed of storm water may be estimated. The basis for the rainfall event and the method of estimation must be indicated.
40 CFR 122.21(g)(4)

(4) Intermittent flows. If any of the discharges described in paragraph (g)(3) of this section are intermittent or seasonal, a description of the frequency, duration and flow rate of each discharge occurrence (except for stormwater runoff, spillage or leaks).
40 CFR 122.21(g)(5)

(5) Maximum production. If an effluent guideline promulgated under section 304 of CWA applies to the applicant and is expressed in terms of production (or other measure of operation), a reasonable measure of the applicant's actual production reported in the units used in the applicable effluent guideline. The reported measure must reflect the actual production of the facility as required by §122.45(b)(2) .
40 CFR 122.21(g)(6)

(6) Improvements. If the applicant is subject to any present requirements or compliance schedules for construction, upgrading or operation of waste treatment equipment, an identification of the abatement requirement, a description of the abatement project, and a listing of the required and projected final compliance dates.
40 CFR 122.21(g)(7)

(7) Effluent characteristics. Information on the discharge of pollutants specified in this paragraph (except information on storm water discharges which is to be provided as specified in §122.26). When "quantitative data" for a pollutant are required, the applicant must collect a sample of effluent and analyze it for the pollutant in accordance with analytical methods approved under 40 CFR part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. When an applicant has two or more outfalls with substantially identical effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also apply to the substantially identical outfalls. The requirements in paragraphs (g)(7)(iii) and (iv) of this section that an applicant must provide

quantitative data for certain pollutants known or believed to be present do not apply to pollutants present in a discharge solely as the result of their presence in intake water; however, an applicant must report such pollutants as present. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform and fecal streptococcus. For all other pollutants, 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, for discharges other than storm water discharges, the Director may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four (4) grab samples will be a representative sample of the effluent being discharged. For storm water discharges, all samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inch and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area. For all applicants, a flow- weighted composite shall be taken for either the entire discharge or for the first three hours of the discharge. The flow- weighted composite sample for a storm water discharge may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen minutes (applicants submitting permit applications for storm water discharges under §122.26(d) may collect flow weighted composite samples using different protocols with respect to the time duration between the collection of sample aliquots, subject to the approval of the Director). However, a minimum of one grab sample may be taken for storm water discharges from holding ponds or other impoundments with a retention period greater than 24 hours. For a flow-weighted composite sample, only one analysis of the composite of aliquots is required. For storm water discharge samples taken from discharges associated with industrial activities, quantitative data must be reported for the grab sample taken during the first thirty minutes (or as soon thereafter as practicable) of the discharge for all pollutants specified in §122.26(c)(1) . For all storm water permit applicants taking flow-weighted composites, quantitative data must be reported for all pollutants specified in §122.26 except pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and fecal streptococcus. The Director may allow or establish appropriate site- specific sampling procedures or requirements, including sampling locations, the season in which the sampling takes place, the minimum duration between the previous measurable storm event and the storm event sampled, the minimum or maximum level of precipitation required for an appropriate storm event, the form of precipitation sampled (snow melt or rain fall), protocols for collecting samples under

40 CFR part 136, and additional time for submitting data on a case-by-case basis. An applicant is expected to "know or have reason to believe" that a pollutant is present in an effluent based on an evaluation of the expected use, production, or storage of the pollutant, or on any previous analyses for the pollutant. (For example, any pesticide manufactured by a facility may be expected to be present in contaminated storm water runoff from the facility.)
40 CFR 122.21(g)(7)(i)
(i) (A) Every applicant must report quantitative data for every outfall for the following pollutants:

Biochemial Oxygen Demand (BOD5)
Chemical Oxygen Demand
Total Organic Carbon
Total Suspended Solids
Ammonia (as N)
Temperature (both winter and summer)
pH

40 CFR 122.21(g)(7)(i)(B)
(B) The Director may waive the reporting requirements for individual point sources or for a particular industry category for one or more of the pollutants listed in paragraph (g)(7)(i)(A) of this section if the applicant has demonstrated that such a waiver is appropriate because information adequate to support issuance of a permit can be obtained with less stringent requirements.
40 CFR 122.21(g)(7)(ii)
(ii) Each applicant with processes in one or more primary industry category (see appendix A to part 122) contributing to a discharge must report quantitative data for the following pollutants in each outfall containing process wastewater:
40 CFR 122.21(g)(7)(ii)(A)
(A) The organic toxic pollutants in the fractions designated in table I of appendix D of this part for the applicant's industrial category or categories unless the applicant qualifies as a small business under paragraph (g)(8) of this section. Table II of appendix D of this part lists the organic toxic poll utants in each fraction. The fractions result from the sample preparation required by the analytical procedure which uses gas chromotography/mass spectrometry. A determination that an applicant falls within a particular industrial category for the purposes of selecting fractions for testing is not conclusive as to the applicant's inclusion in that category for any other purposes. [See Notes 2, 3, and 4 of this section.]
40 CFR 122.21(g)(7)(ii)(B)
(B) The pollutants listed in table III of appendix D of this part (the toxic metals, cyanide, and total phenols).
40 CFR 122.21(g)(7)(iii)
(iii) (A) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants in table IV of appendix D (certain conventional and nonconventional

pollutants) is discharged from each outfall. If an applicable effluent limitations guideline either directly limits the pollutant or, by its express terms, indirectly limits the pollutant through limitations on an indicator, the applicant must report quantitative data. For every pollutant discharged which is not so limited in an effluent limitations guideline, the applicant must either report quantitative data or briefly describe the reasons the pollutant is expected to be discharged.
40 CFR 122.21(g)(7)(iii)(B)

(B) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants listed in table II or table III of appendix D (the toxic pollutants and total phenols) for which quantitative data are not otherwise required under paragraph (g)(7)(ii) of this section, is discharged from each outfall. For every pollutant expected to be discharged in concentrations of 10 ppb or greater the applicant must report quantitative data. For acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, where any of these four pollutants are expected to be discharged in concentrations of 100 ppb or greater the applicant must report quantitative data. For every pollutant expected to be discharged in concentrations less than 10 ppb, or in the case of acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, in concentrations less than 100 ppb, the applicant must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged. An applicant qualifying as a small business under paragraph (g)(8) of this section is not required to analyze for pollutants listed in table II of appendix D (the organic toxic pollutants).
40 CFR 122.21(g)(7)(iv)

(iv) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants in table V of appendix D of this part (certain hazardous substances and asbestos) are discharged from each outfall. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any quantitative data it has for any pollutant.
40 CFR 122.21(g)(7)(v)

(v) Each applicant must report qualitative data, generated using a screening procedure not calibrated with analytical standards, for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) if it:
40 CFR 122.21(g)(7)(v)(A)

(A) Uses or manufactures 2,4,5- trichlorophenoxy acetic acid (2,4,5,-T); 2- (2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5,-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophene (HCP); or
40 CFR 122.21(g)(7)(v)(B)

(B) Knows or has reason to believe that TCDD is or may be present in an effluent.
40 CFR 122.21(g)(8)

(8) Small business exemption. An applicant which qualifies as a small business under one of the following criteria is exempt from the requirements in paragraph (g)(7)(ii)(A) or (g)(7)(iii)(A) of this section to submit quantitative data for the pollutants listed in table II of appendix D of this part (the organic toxic pollutants):

40 CFR 122.21(g)(8)(i)

(i) For coal mines, a probable total annual production of less than 100,000 tons per year.

40 CFR 122.21(g)(8)(ii)

(ii) For all other applicants, gross total annual sales averaging less than $100,000 per year (in second quarter 1980 dollars).

40 CFR 122.21(g)(9)

(9) Used or manufactured toxics. A listing of any toxic pollutant which the applicant currently uses or manufactures as an intermediate or final product or byproduct. The Director may waive or modify this requirement for any applicant if the applicant demonstrates that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue the permit.

40 CFR 122.21(g)(10)

(10) [Reserved]

40 CFR 122.21(g)(11)

(11) Biological toxicity tests. An identification of any biological toxicity tests which the applicant knows or has reason to believe have been made within the last 3 years on any of the applicant's discharges or on a receiving water in relation to a discharge.

40 CFR 122.21(g)(12)

(12) Contract analyses. If a contract laboratory or consulting firm performed any of the analyses required by paragraph (g)(7) of this section, the identity of each laboratory or firm and the analyses performed.

40 CFR 122.21(g)(13)

(13) Additional information. In addition to the information reported on the application form, applicants shall provide to the Director, at his or her request, such other information as the Director may reasonably require to assess the discharges of the facility and to determine whether to issue an NPDES permit. The additional information may include additional quantitative data and bioassays to assess the relative toxicity of discharges to aquatic life and requirements to determine the cause of the toxicity.

40 CFR 122.21(h)

(h) Application requirements for manufacturing, commercial, mining and silvicultural facilities which discharge only non-process wastewater. Except for stormwater discharges, all manufacturing, commercial, mining and silvicultural dischargers applying for NPDES permits which discharge only non-process wastewater not regulated by an effluent limitations guideline or new source performance standard shall provide the following information to the Director, using application forms provided by the Director:

40 CFR 122.21(h)(1)
(1) Outfall location. Outfall number, latitude and longitude to the nearest 15 seconds, and the name of the receiving water.
40 CFR 122.21(h)(2)
(2) Discharge date (for new dischargers). Date of expected commencement of discharge.
40 CFR 122.21(h)(3)
(3) Type of waste. An identification of the general type of waste discharged, or expected to be discharged upon commencement of operations, including sanitary wastes, restaurant or cafeteria wastes, or noncontact cooling water. An identification of cooling water additives (if any) that are used or expected to be used upon commencement of operations, along with their composition if existing composition is available.
40 CFR 122.21(h)(4)
(4) Effluent characteristics.
40 CFR 122.21(h)(4)(i)
(i) Quantitative data for the pollutants or parameters listed below, unless testing is waived by the Director. The quantitative data may be data collected over the past 365 days, if they remain representative of current operations, and must include maximum daily value, average daily value, and number of measurements taken. The applicant must collect and analyze samples in accordance with 40 CFR part 136. Grab samples must be used for pH, temperature, oil and grease, total residual chlorine, and fecal coliform. For all other pollutants, 24-hour composite samples must be used. New dischargers must include estimates for the pollutants or parameters listed below instead of actual sampling data, along with the source of each estimate. All levels must be reported or estimated as concentration and as total mass, except for flow, pH, and temperature.
40 CFR 122.21(h)(4)(i)(A)
(A) Biochemical Oxygen Demand (BOD5).
40 CFR 122.21(h)(4)(i)(B)
(B) Total Suspended Solids (TSS).
40 CFR 122.21(h)(4)(i)(C)
(C) Fecal Coliform (if believed present or if sanitary waste is or will be discharged).
40 CFR 122.21(h)(4)(i)(D)
(D) Total Residual Chlorine (if chlorine is used).
40 CFR 122.21(h)(4)(i)(E)
(E) Oil and Grease.
40 CFR 122.21(h)(4)(i)(F)
(F) Chemical Oxygen Demand (COD) (if non-contact cooling water is or will be discharged).
40 CFR 122.21(h)(4)(i)(G)
(G) Total Organic Carbon (TOC) (if non-contact cooling water is or will be discharged).
40 CFR 122.21(h)(4)(i)(H)
(H) Ammonia (as N).
40 CFR 122.21(h)(4)(i)(I)
(I) Discharge Flow.
40 CFR 122.21(h)(4)(i)(J)

(J) pH.

40 CFR 122.21(h)(4)(i)(K)

(K) Temperature (Winter and Summer).

40 CFR 122.21(h)(4)(ii)

(ii) The Director may waive the testing and reporting requirements for any of the pollutants or flow listed in paragraph (h)(4)(i) of this section if the applicant submits a request for such a waiver before or with his application which demonstrates that information adequate to support issuance of a permit can be obtained through less stringent requirements.

40 CFR 122.21(h)(4)(iii)

(iii) If the applicant is a new discharger, he must complete and submit Item IV of Form 2e (see §122.21(h)(4)) by providing quantitative data in accordance with that section no later than two years after commencement of discharge. However, the applicant need not complete those portions of Item IV requiring tests which he has already performed and reported under the discharge monitoring requirements of his NPDES permit.

40 CFR 122.21(h)(4)(iv)

(iv) The requirements of parts i and iii of this section that an applicant must provide quantitative data or estimates of certain pollutants do not apply to pollutants present in a discharge solely as a result of their presence in intake water. However, an applicant must report such pollutants as present. Net credit may be provided for the presence of pollutants in intake water if the requirements of §122.45(g) are met.

40 CFR 122.21(h)(5)

(5) Flow. A description of the frequency of flow and duration of any seasonal or intermittent discharge (except for stormwater runoff, leaks, or spills).

40 CFR 122.21(h)(6)

(6) Treatment system. A brief description of any system used or to be used.

40 CFR 122.21(h)(7)

(7) Optional information. Any additional information the applicant wishes to be considered, such as influent data for the purpose of obtaining "net" credits pursuant to §122.45(g).

40 CFR 122.21(h)(8)

(8) Certification. Signature of certifying official under §122.22.

40 CFR 122.21(h)(8)(i)

(i) Application requirements for new and existing concentrated animal feeding operations and aquatic animal production facilities. New and existing concentrated animal feeding operations (defined in §122.23) and concentrated aquatic animal production facilities (defined in §122.24) shall provide the following information to the Director, using the application form provided by the Director:

40 CFR 122.21(h)(1)

(1) For concentrated animal feeding operations:

40 CFR 122.21(h)(1)(i)

(i) The type and number of animals in open confinement and housed under roof.

40 CFR 122.21(h)(1)(ii)
(ii) The number of acres used for confinement feeding.
40 CFR 122.21(h)(1)(iii)
(iii) The design basis for the runoff diversion and control system, if one exists, including the number of acres of contributing drainage, the storage capacity, and the design safety factor.
40 CFR 122.21(h)(2)
(2) For concentrated aquatic animal production facilities:
40 CFR 122.21(h)(2)(i)
(i) The maximum daily and average monthly flow from each outfall.
40 CFR 122.21(h)(2)(ii)
(ii) The number of ponds, raceways, and similar structures.
40 CFR 122.21(h)(2)(iii)
(iii) The name of the receiving water and the source of intake water.
40 CFR 122.21(h)(2)(iv)
(iv) For each species of aquatic animals, the total yearly and maximum harvestable weight.
40 CFR 122.21(h)(2)(v)
(v) The calendar month of maximum feeding and the total mass of food fed during that month.
40 CFR 122.21(j)
(j) Application requirements for new and existing POTWs.
40 CFR 122.21(j)(1)
(1) The following POTWs shall provide the results of valid whole effluent biological toxicity testing to the Director:
40 CFR 122.21(j)(1)(i)
(i) All POTWs with design influent flows equal to or greater than one million gallons per day;
40 CFR 122.21(j)(1)(ii)
(ii) All POTWs with approved pretreatment programs or POTWs required to develop a pretreatment program;
40 CFR 122.21(j)(2)
(2) In addition to the POTWs listed in paragraph (j)(1) of this section, the Director may require other POTWs to submit the results of toxicity tests with their permit applications, based on consideration of the following factors:
40 CFR 122.21(j)(2)(i)
(i) The variability of the pollutants or pollutant parameters in the POTW effluent (based on chemical-specific information, the type of treatment facility, and types of industrial contributors);
40 CFR 122.21(j)(2)(ii)
(ii) The dilution of the effluent in the receiving water (ratio of effluent flow to receiving stream flow);
40 CFR 122.21(j)(2)(iii)
(iii) Existing controls on point or nonpoint sources, including total maximum daily load calculations for the waterbody segment and the relative contribution of the POTW;
40 CFR 122.21(j)(2)(iv)

(iv) Receiving stream characteristics, including possible or known water quality impairment, and whether the POTW discharges to a coastal water, one of the Great Lakes, or a water designated as an outstanding natural resource; or

40 CFR 122.21(j)(2)(v)

(v) Other considerations (including but not limited to the history of toxic impact and compliance problems at the POTW), which the Director determines could cause or contribute to adverse water quality impacts.

40 CFR 122.21(j)(3)

(3) For POTWs required under paragraph (j)(1) or (j)(2) of this section to conduct toxicity testing, POTWs shall use EPA's methods or other established protocols which are scientifically defensible and sufficiently sensitive to detect aquatic toxicity. Such testing must have been conducted since the last NPDES permit reissuance or permit modification under 40 CFR 122.62(a), whichever occurred later.

40 CFR 122.21(j)(4)

(4) All POTWs with approved pretreatment programs shall provide the following information to the Director: a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c)(1).

40 CFR 122.21(k)

(k) Application requirements for new sources and new discharges. New manufacturing, commercial, mining and silvicultural dischargers applying for NPDES permits (except for new discharges of facilities subject to the requirements of paragraph (h) of this section or new discharges of storm water associated with industrial activity which are subject to the requirements of §122.26(c)(1) and this section (except as provided by §122.26(c)(1)(ii)) shall provide the following information to the Director, using the application forms provided by the Director:

40 CFR 122.21(k)(1)

(1) Expected outfall location. The latitude and longitude to the nearest 15 seconds and the name of the receiving water.

40 CFR 122.21(k)(2)

(2) Discharge dates. The expected date of commencement of discharge.

40 CFR 122.21(k)(3)

(3) Flows, sources of pollution, and treatment technologies.

40 CFR 122.21(k)(3)(i)

(i) Expected treatment of wastewater. Description of the treatment that the wastewater will receive, along with all operations contributing wastewater to the effluent, average flow contributed by each operation, and the ultimate disposal of any solid or liquid wastes not discharged.

40 CFR 122.21(k)(3)(ii)

(ii) Line drawing. A line drawing of the water flow through the facility with a water balance as described in §122.21(g)(2) .

40 CFR 122.21(k)(3)(iii)

(iii) Intermittent flows. If any of the expected discharges will be intermittent or seasonal, a description of the frequency, duration and maximum daily flow rate of each discharge occurrence (except for stormwater runoff, spillage, or leaks).
40 CFR 122.21(k)(4)

(4) Production. If a new source performance standard promulgated under section 306 of CWA or an effluent limitation guideline applies to the applicant and is expressed in terms of production (or other measure of operation), a reasonable measure of the applicant's expected actual production reported in the units used in the applicable effluent guideline or new source performance standard as required by §122.45(b)(2) for each of the first three years. Alternative estimates may also be submitted if production is likely to vary.
40 CFR 122.21(k)(5)

(5) Effluent characteristics. The requirements in paragraphs (h)(4)(i) , (ii), and (iii) of this section that an applicant must provide estimates of certain pollutants expected to be present do not apply to pollutants present in a discharge solely as a result of their presence in intake water; however, an applicant must report such pollutants as present. Net credits may be provided for the presence of pollutants in intake water if the requirements of §122.45(g) are met. All levels (except for discharge flow, temperature, and pH) must be estimated as concentration and as total mass.
40 CFR 122.21(k)(5)(i)

(i) Each applicant must report estimated daily maximum, daily average, and source of information for each outfall for the following pollutants or parameters. The Director may waive the reporting requirements for any of these pollutants and parameters if the applicant submits a request for such a waiver before or with his application which demonstrates that information adequate to support issuance of the permit can be obtained through less stringent reporting requirements.
40 CFR 122.21(k)(5)(i)(A)

(A) Biochemical Oxygen Demand (BOD).
40 CFR 122.21(k)(5)(i)(B)

(B) Chemical Oxygen Demand (COD).
40 CFR 122.21(k)(5)(i)(C)

(C) Total Organic Carbon (TOC).
40 CFR 122.21(k)(5)(i)(D)

(D) Total Suspended Solids (TSS).
40 CFR 122.21(k)(5)(i)(E)

(E) Flow.
40 CFR 122.21(k)(5)(i)(F)

(F) Ammonia (as N).
40 CFR 122.21(k)(5)(i)(G)

(G) Temperature (winter and summer).
40 CFR 122.21(k)(5)(i)(H)

(H) pH.
40 CFR 122.21(k)(5)(ii)

(ii) Each applicant must report estimated daily maximum, daily average, and source of information for each outfall for the following pollutants, if the applicant knows or

has reason to believe they will be present or if they are limited by an effluent limitation guideline or new source performance standard either directly or indirectly through limitations on an indicator pollutant: all pollutants in table IV of appendix D of part 122 (certain conventional and nonconventional pollutants).
40 CFR 122.21(k)(5)(iii)

(iii) Each applicant must report estimated daily maximum, daily average and source of information for the following pollutants if he knows or has reason to believe that they will be present in the discharges from any outfall:
40 CFR 122.21(k)(5)(iii)(A)

(A) The pollutants listed in table III of appendix D (the toxic metals, in the discharge from any outfall: Total cyanide, and total phenols);
40 CFR 122.21(k)(5)(iii)(B)

(B) The organic toxic pollutants in table II of appendix D (except bis (chloromethyl) ether, dichlorofluoro-methane and trichlorofluoro- methane). This requirement is waived for applicants with expected gross sales of less than $100,000 per year for the next three years, and for coal mines with expected average production of less than 100,000 tons of coal per year.
40 CFR 122.21(k)(5)(iv)

(iv) The applicant is required to report that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) may be discharged if he uses or manufactures one of the following compounds, or if he knows or has reason to believe that TCDD will or may be present in an effluent:
40 CFR 122.21(k)(5)(iv)(A)

(A) 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) (CAS #93-76-5);
40 CFR 122.21(k)(5)(iv)(B)

(B) 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) (CAS #93- 72-1);
40 CFR 122.21(k)(5)(iv)(C)

(C) 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) (CAS #136-25-4);
40 CFR 122.21(k)(5)(iv)(D)

(D) 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) (CAS #299-84-3);
40 CFR 122.21(k)(5)(iv)(E)

(E) 2,4,5-trichlorophenol (TCP) (CAS #95-95-4); or
40 CFR 122.21(k)(5)(iv)(F)

(F) Hexachlorophene (HCP) (CAS #70-30-4);
40 CFR 122.21(k)(5)(v)

(v) Each applicant must report any pollutants listed in table V of appendix D (certain hazardous substances) if he believes they will be present in any outfall (no quantitative estimates are required unless they are already available).
40 CFR 122.21(k)(5)(vi)

(vi) No later than two years after the commencement of discharge from the proposed facility, the applicant is required to complete and submit Items V and VI of NPDES application Form 2c (see §122.21(g)). However, the applicant need not complete

those portions of Item V requiring tests which he has already performed and reported under the discharge monitoring requirements of his NPDES permit.
40 CFR 122.21(k)(6)
(6) Engineering Report. Each applicant must report the existence of any technical evaluation concerning his wastewater treatment, along with the name and location of similar plants of which he has knowledge.
40 CFR 122.21(k)(7)
(7) Other information. Any optional information the permittee wishes to have considered.
40 CFR 122.21(k)(8)
(8) Certification. Signature of certifying official under §122.22.
40 CFR 122.21(l)
(l) Special provisions for applications from new sources.
40 CFR 122.21(l)(1)
(1) The owner or operator of any facility which may be a new source(as defined in §122.2) and which is located in a State without an approved NPDES program must comply with the provisions of this paragaraph.
40 CFR 122.21(l)(2)
(2) (i) Before beginning any on-site construction as defined in §122.29, the owner or operator of any facility which may be a new source must submit information to the Regional Administrator so that he or she can determine if the facility is a new source. The Regional Administrator may request any additional information needed to determine whether the facility is a new source.
40 CFR 122.21(l)(2)(ii)
(ii) The Regional Administrator shall make an initial determination whether the facility is a new source within 30 days of receiving all necessary information under paragraph (k)(2)(i) of this section.
40 CFR 122.21(l)(3)
(3) The Regional Administrator shall issue a public notice in accordance with §124.10 of the new source determination under paragraph (k)(2) of this section. If the Regional Administrator has determined that the facility is a new source, the notice shall state that the applicant must comply with the environmental review requirements of 40 CFR 6.600 et seq.
40 CFR 122.21(l)(4)
(4) Any interested person may challenge the Regional Administrator's initial new source determination by requesting an evidentiary hearing under subpart E of part 124 within 30 days of issuance of the public notice of the initial determination. If all parties to the evidentiary hearing on the determination agree, the Regional Administrator may defer the hearing until after a final permit decision is made, and consolidate the hearing on the determination with any hearing on the permit.
40 CFR 122.21(m)
(m) Variance requests by non-POTWs. A discharger which is not a publicly owned treatment works (POTW) may request a variance from otherwise applicable effluent limitations under any of the

following statutory or regulatory provisions within the times specified in this paragraph:

40 CFR 122.21(m)(1)

(1) Fundamentally different factors.

40 CFR 122.21(m)(1)(i)

(i) A request for a variance based on the presence of "fundamentally different factors" from those on which the effluent limitations guideline was based shall be filed as follows:

40 CFR 122.21(m)(1)(i)(A)

(A) For a request from best practicable control technology currently available (BPT), by the close of the public comment period under §124.10.

40 CFR 122.21(m)(1)(i)(B)

(B) For a request from best available technology economically achievable (BAT) and/or best conventional pollutant control technology (BCT), by no later than:

40 CFR 122.21(m)(1)(i)(B)(1)

(1) July 3, 1989, for a request based on an effluent limitation guideline promulgated before February 4, 1987, to the extent July 3, 1989 is not later than that provided under previously promulgated regulations; or

40 CFR 122.21(m)(1)(i)(B)(2)

(2) 180 days after the date on which an effluent limitation guideline is published in the FEDERAL REGISTER for a request based on an effluent limitation guideline promulgated on or after February 4, 1987.

40 CFR 122.21(m)(1)(ii)

(ii) The request shall explain how the requirements of the applicable regulatory and/or statutory criteria have been met.

40 CFR 122.21(m)(2)

(2) Non-conventional pollutants. A request for a variance from the BAT requirements for CWA section 301(b)(2)(F) pollutants (commonly called "non-conventional" pollutants) pursuant to section 301 (c) of CWA because of the economic capability of the owner or operator, or pursuant to section 301(g) of the CWA (provided however that a §301(g) variance may only be requested for ammonia; chlorine; color; iron; total phenols (4AAP) (when determined by the Administrator to be a pollutant covered by section 301(b)(2)(F)) and any other pollutant which the Administrator lists under section 301(g)(4) of the CWA) must be made as follows:

40 CFR 122.21(m)(2)(i)

(i) For those requests for a variance from an effluent limitation based upon an effluent limitation guideline by:

40 CFR 122.21(m)(2)(i)(A)

(A) Submitting an initial request to the Regional Administrator, as well as to the State Director if applicable, stating the name of the discharger, the permit number, the outfall number(s), the applicable effluent guideline, and whether the discharger is requesting a section 301(c) or section 301(g) modification or both. This request must have been filed not later than:

40 CFR 122.21(m)(2)(i)(A)(1)

(1) September 25, 1978, for a pollutant which is controlled by a BAT effluent limitation guideline promulgated before December 27, 1977; or

40 CFR 122.21(m)(2)(i)(A)(2)

(2) 270 days after promulgation of an applicable effluent limitation guideline for guidelines promulgated after December 27, 1977; and

40 CFR 122.21(m)(2)(i)(B)

(B) Submitting a completed request no later than the close of the public comment period under §124.10 demonstrating that the requirements of §124.13 and the applicable requirements of part 125 have been met. Notwithstanding this provision, the complete application for a request under section 301(g) shall be filed 180 days before EPA must make a decision (unless the Regional Division Director establishes a shorter or longer period).

40 CFR 122.21(m)(2)(ii)

(ii) For those requests for a variance from effluent limitations not based on effluent limitation guidelines, the request need only comply with paragraph (m)(2)(i)(B) of this section and need not be preceded by an initial request under paragraph (m)(2)(i)(A) of this section.

40 CFR 122.21(m)(3)

(3) [Reserved]

[§122.21(m)(3) removed and reserved at 60 FR 33931, June 29, 1995]

40 CFR 122.21(m)(4)

(4) [Reserved]

[§122.21(m)(4) removed and reserved at 60 FR 33931, June 29, 1995]

40 CFR 122.21(m)(5)

(5) Water quality related effluent limitations. A modification under section 302(b)(2) of requirements under section 302(a) for achieving water quality related effluent limitations may be requested no later than the close of the public comment period under §124.10 on the permit from which the modification is sought.

40 CFR 122.21(m)(6)

(6) Thermal discharges. A variance under CWA section 316(a) for the thermal component of any discharge must be filed with a timely application for a permit under this section, except that if thermal effluent limitations are established under CWA section 402(a)(1) or are based on water quality standards the request for a variance may be filed by the close of the public comment period under §124.10. A copy of the request as required under 40 CFR part 125, subpart H, shall be sent simultaneously to the appropriate State or interstate certifying agency as required under 40CFR part 125. (See §124.65 for special procedures for section 316(a) thermal variances.)

40 CFR 122.21(n)

(n) Variance requests by POTWs. A discharger which is a publicly owned treatment works (POTW) may request a variance from

otherwise applicable effluent limitations under any of the following statutory provisions as specified in this paragraph:
40 CFR 122.21(n)(1)

(1) Discharges into marine waters. A request for a modification under CWA section 301(h) of requirements of CWA section 301(b)(1)(B) for discharges into marine waters must be filed in accordance with the requirements of 40 CFR part 125, subpart G.
40 CFR 122.21(n)(2)

(2) [Reserved]
[§122.21(n)(2) removed and reserved at 60 FR 33931, June 29, 1995]
40 CFR 122.21(n)(3)

(3) Water quality based effluent limitation. A modification under CWA section 302(b)(2) of the requirements under section 302(a) for achieving water quality based effluent limitations shall be requested no later than the close of the public comment period under §124.10 on the permit from which the modification is sought.
40 CFR 122.21(o)

(o) Expedited variance procedures and time extensions.
40 CFR 122.21(o)(1)

(1) Notwithstanding the time requirements in paragraphs (m) and (n) of this section, the Director may notify a permit applicant before a draft permit is issu-ed under §124.6 that the draft permit will likely contain limitations which are eligible for variances. In the notice the Director may require the applicant as a condition of consideration of any potential variance request to submit a request explaining how the requirements of part 125 applicable to the variance have been met and may require its submission within a specified reasonable time after receipt of the notice. The notice may be sent before the permit application has been submitted. The draft or final permit may contain the alternative limitations which may become effective upon final grant of the variance.
40 CFR 122.21(o)(2)

(2) A discharger who cannot file a timely complete request required under paragraph (m)(2)(i)(B) or (m)(2)(ii) of this section may request an extension. The extension may be granted or denied at the discretion of the Director. Extensions shall be no more than 6 months in duration.
40 CFR 122.21(p)

(p) Recordkeeping. Except for information required by paragraph (d)(3)(ii) of this section, which shall be retained for a period of at least five years from the date the application is signed (or longer as required by 40 CFR part 503), applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under this section for a period of at least 3 years from the date the application is signed.
[Note 1: At 46 FR 2046, Jan. 8, 1981, the Environmental Protection Agency suspended until further notice §122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C

of the NPDES application Form 2c as they apply to coal mines. This revision continues that suspension.]1

[Note 2: At 46 FR 22585, April 20, 1981, the Environmental Protection Agency suspended until further notice §122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to:

a. Testing and reporting for all four organic fractions in the Greige Mills Subcategory of the Textile Mills industry (subpart C Low water use processing of 40 CFR part 410), and testing and reporting for the pesticide fraction in all other subcategories of this industrial category.

b. Testing and reporting for the volatile, base/neutral and pesticide fractions in the Base and Precious Metals Subcategory of the Ore Mining and Dressing industry (subpart B of 40 CFR part 440), and testing and reporting for all four fractions in all other subcategories of this industrial category.

c. Testing and reporting for all four GC/MS fractions in the Porcelain Enameling industry.

This revision continues that suspension.]1

[Note 3: At 46 FR 35090, July 1, 1981, the Environmental Protection Agency suspended until further notice §122.21(g)(7)(ii)(A) and the corresponding portions of Item V-C of the NPDES application Form 2c as they apply to:

a. Testing and reporting for the pesticide fraction in the Tall Oil Rosin Subcategory (subpart D) and Rosin-Based Derivatives Subcategory (subpart F) of the Gum and Wood Chemicals industry (40 CFR part 454), and testing and reporting for the pesticide and base-neutral fractions in all other subcategories of this industrial category.

b. Testing and reporting for the pesticide fraction in the Leather Tanning and Finishing, Paint and Ink Formulation, and Photographic Supplies industrial categories.

c. Testing and reporting for the acid, base/neutral and pesticide fractions in the Petroleum Refining industrial category.

d. Testing and reporting for the pesticide fraction in the Papergrade Sulfite subcategories (subparts J and U) of the Pulp and Paper industry (40 CFR part 430); testing and reporting for the base/neutral and pesticide fractions in the following subcategories: Deink (subpart Q), Dissolving Kraft (subpart F), and Paperboard from Waste Paper (subpart E); testing and reporting for the volatile, base/neutral and pesticide fractions in the following subcategories: BCT Bleached Kraft (subpart H), Semi-Chemical (subparts B and C), and Nonintegrated-Fine Papers (subpart R); and testing and reporting for the acid, base/neutral, and pesticide fractions in the following subcategories: Fine Bleached Kraft (subpart I), Dissolving Sulfite Pulp (subpart K), Groundwood-Fine Papers (subpart O), Market Bleached Kraft (subpart G), Tissue from Wastepaper (subpart T), and Nonintegrated-Tissue Papers (subpart S).

e. Testing and reporting for the base/neutral fraction in the Once-Through Cooling Water, Fly Ash and Bottom Ash Transport Water process wastestreams of the Steam Electric Power Plant industrial category.

This revision continues that suspension.]1

[Editor's note: Forms 1, 2d, and 2e referenced in the following Appendix are published at the end of this regulation.]

1 Editorial Note: The words "This revision" refer to the document published at 48 FR 14153, April 1, 1983.

40 CFR 122.22 Signatories to permit applications and reports (applicable to State programs, see §123.25).

40 CFR 122.22(a)

(a) Applications. All permit applications shall be signed as follows:

40 CFR 122.22(a)(1)

(1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who perfoms similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in §122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under §122.22(a)(1)(ii) rather than to specific individuals.

40 CFR 122.22(a)(2)

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

40 CFR 122.22(a)(3)

(3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

40 CFR 122.22(b)

(b) All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

40 CFR 122.22(b)(1)

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

40 CFR 122.22(b)(2)

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,

40 CFR 122.22(b)(3)

(3) The written authorization is submitted to the Director.

40 CFR 122.22(c)

(c) Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

40 CFR 122.22(d)

(d) Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. "

[Editor's note: The authority for §122.22 is the Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S. C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), and the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)]

40 CFR 122.41 Conditions applicable to all permits.

The following conditions apply to all NPDES permits. Additional conditions applicable to NPDES permits are in §122.42. All conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

40 CFR 122.41(a)

(a) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a

violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
40 CFR 122.41(a)(1)

(1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
40 CFR 122.41(a)(2)

(2) The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402 , or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Clean Water Act provides that any person who negligently violates section 301, 302 , 306, 307, 308, 318 or 405of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 306 , 307, 308, 318 or 405of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.
40 CFR 122.41(a)(3)

(3) Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

40 CFR 122.41(b)

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

40 CFR 122.41(c)

(c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

40 CFR 122.41(d)

(d) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

40 CFR 122.41(e)

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

40 CFR 122.41(f)

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

40 CFR 122.41(g)

(g) Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

40 CFR 122.41(h)

(h) Duty to provide information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or

to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.
40 CFR 122.41(i)

(i) Inspection and entry. The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:
40 CFR 122.41(i)(1)

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
40 CFR 122.41(i)(2)

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
40 CFR 122.41(i)(3)

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
40 CFR 122.41(i)(4)

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.
40 CFR 122.41(j)

(j) Monitoring and records.
40 CFR 122.41(j)(1)

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
40 CFR 122.41(j)(2)

(2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
40 CFR 122.41(j)(3)

(3) Records of monitoring information shall include:
40 CFR 122.41(j)(3)(i)

(i) The date, exact place, and time of sampling or measurements;
40 CFR 122.41(j)(3)(ii)

(ii) The individual(s) who performed the sampling or measurements;
40 CFR 122.41(j)(3)(iii)

(iii) The date(s) analyses were performed;
40 CFR 122.41(j)(3)(iv)

(iv) The individual(s) who performed the analyses;
40 CFR 122.41(j)(3)(v)
(v) The analytical techniques or methods used; and
40 CFR 122.41(j)(3)(vi)
(vi) The results of such analyses.
40 CFR 122.41(j)(4)
(4) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in the permit.
40 CFR 122.41(j)(5)
(5) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.
40 CFR 122.41(k)
(k) Signatory requirement.
40 CFR 122.41(k)(1)
(1) All applications, reports, or information submitted to the Director shall be signed and certified. (See §122.22)
40 CFR 122.41(k)(2)
(2) The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
40 CFR 122.41(l)
(l) Reporting requirements.
40 CFR 122.41(l)(1)
(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
40 CFR 122.41(l)(1)(i)
(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in §122.29(b); or
40 CFR 122.41(l)(1)(ii)
(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under §122.42(a)(1).
40 CFR 122.41(l)(1)(iii)

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

40 CFR 122.41(l)(2)

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

40 CFR 122.41(l)(3)

(3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See §122.61; in some cases, modification or revocation and reissuance is mandatory.)

40 CFR 122.41(l)(4)

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

40 CFR 122.41(l)(4)(i)

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

40 CFR 122.41(l)(4)(ii)

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

40 CFR 122.41(l)(4)(iii)

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

40 CFR 122.41(l)(5)

(5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

40 CFR 122.41(l)(6)

(6) Twenty-four hour reporting.

40 CFR 122.41(l)(6)(i)

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee

becames aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
40 CFR 122.41(l)(6)(ii)

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.
40 CFR 122.41(l)(6)(ii)(A)

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See §122.41(g)).
40 CFR 122.41(l)(6)(ii)(B)

(B) Any upset which exceeds any effluent limitation in the permit.
40 CFR 122.41(l)(6)(ii)(C)

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See §122.44(g).)
40 CFR 122.41(l)(6)(iii)

(iii) The Director may waive the written report on a case-by-case basis for reports under paragraph (l)(6)(ii) of this section if the oral report has been received within 24 hours.
40 CFR 122.41(l)(7)

(7) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (l)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(6) of this section .
40 CFR 122.41(l)(8)

(8) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.
40 CFR 122.41(m)

(m) Bypass
40 CFR 122.41(m)(1)

(1) Definitions.
40 CFR 122.41(m)(1)(ii)

(ii) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
40 CFR 122.41(m)(1)(ii)

(ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
40 CFR 122.41(m)(2)

(2) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (m)(3) and (m)(4) of this section .

40 CFR 122.41(m)(3)

(3) Notice

40 CFR 122.41(m)(3)(i)

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

40 CFR 122.41(m)(3)(ii)

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (1)(6) of this section (24-hour notice).

40 CFR 122.41(m)(4)

(4) Prohibition of bypass.

40 CFR 122.41(m)(4)(i)

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

40 CFR 122.41(m)(4)(i)(A)

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

40 CFR 122.41(m)(4)(i)(B)

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

40 CFR 122.41(m)(4)(i)(C)

(C) The permittee submitted notices as required under paragraph (m)(3) of this section.

40 CFR 122.41(m)(4)(ii)

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.

40 CFR 122.41(n)

(n) Upset

40 CFR 122.41(n)(1)

(1) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the ex tent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

40 CFR 122.41(n)(2)

(2) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
40 CFR 122.41(n)(3)

(3) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
40 CFR 122.41(n)(3)(i)

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
40 CFR 122.41(n)(3)(ii)

(ii) The permitted facility was at the time being properly operated; and
40 CFR 122.41(n)(3)(iii)

(iii) The permittee submitted notice of the upset as required in paragraph (1)(6)(ii)(B) of this section (24 hour notice).
40 CFR 122.41(n)(3)(iv)

(iv) The permittee complied with any remedial measures required under paragraph (d) of this section.
40 CFR 122.41(n)(4)

(4) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.
Clean Water Act (33 U.S.C.1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)
[§122.41 amended at 58 FR 18015, April 7, 1993]

40 CFR 122.61 Transfer of permits (applicable to State programs, see §123.25).
40 CFR 122.61(a)

(a) Transfers by modification. Except as provided in paragraph (b) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under §122.62(b)(2)), or a minor modification made (under §122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.
40 CFR 122.61(b)

(b) Automatic transfers. As an alternative to transfers under paragraph (a) of this section, any NPDES permit may be automatically transferred to a new permittee if:
40 CFR 122.61(b)(1)

(1) The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in paragraph (b)(2) of this section;
40 CFR 122.61(b)(2)

(2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

40 CFR 122.61(b)(3)

(3) The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under §122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b)(2) of this section.

40 CFR 122.62 Modification or revocation and reissuance of permits (applicable to State programs, see §123.25).

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see §122.41), receives a request for modification or revocation and reissuance under §124.5, or conducts a review of the permit file) he or she may determine whether or not one or more of the causes listed in paragraphs (a) and (b) of this section for modification or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of §124.5(c), and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See §124.5(c) (2). If cause does not exist under this section or §122.63, the Director shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in §122.63 for minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in part 124 (or procedures of an approved State program) followed.

40 CFR 122.62(a)

(a) Causes for modification. The following are causes for modification but not revocation and reissuance of permits except when the permittee requests or agrees.

40 CFR 122.62(a)(1)

(1) Alterations. There are material and substantial alterations or additions to the permitted facility or activity (including a change or changes in the permittee's sludge use or disposal practice) which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

NOTE: Certain reconstruction activities may cause the new source provisions of §122.29 to be applicable.

40 CFR 122.62(a)(2)

(2) Information. The Director has received new information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or

test methods) and would have justified the application of different permit conditions at the time of issuance. For NPDES general permits (§122.28) this cause includes any information indicating that cumulative effects on the environment are unacceptable. For new source or new discharger NPDES permits §§122.21, 122.29), this cause shall include any significant information derived from effluent testing required under §122.21(k)(5)(vi) or §122.21(h)(4)(iii) after issuance of the permit.

40 CFR 122.62(a)(3)

(3) New regulations. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:

40 CFR 122.62(a)(3)(i)

(i) For promulgation of amended standards or regulations, when:

40 CFR 122.62(a)(3)(i)(A)

(A) The permit condition requested to be modified was based on a promulgated effluent limitation guideline, EPA approved or promulgated water quality standards, or the Secondary Treatment Regulations under part 133; and

40 CFR 122.62(a)(3)(i)(B)

(B) EPA has revised, withdrawn, or modified that portion of the regulation or effluent limitation guideline on which the permit condition was based, or has approved a State action with regard to a water quality standard on which the permit condition was based; and

40 CFR 122.62(a)(3)(i)(C)

(C) A permittee requests modification in accordance with §124.5 within ninety (90) days after FEDERAL REGISTER notice of the action on which the request is based.

40 CFR 122.62(a)(3)(ii)

(ii) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations or effluent limitation guidelines, if the remand and stay concern that portion of the regulations or guidelines on which the permit condition was based and a request is filed by the permittee in accordance with §124.5 within ninety (90) days of judicial remand.

40 CFR 122.62(a)(3)(iii)

(iii) For changes based upon modified State certifications of NPDES permits, see §124.55(b).

40 CFR 122.62(a)(4)

(4) Compliance schedules. The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy. However, in no case may an NPDES compliance schedule be modified to extend beyond an applicable CWA statutory deadline. See also §122.63(c) (minor modifications) and paragraph (a)(14) of this section (NPDES innovative technology).

40 CFR 122.62(a)(5)

(5) When the permittee has filed a request for a variance under CWA section 301(c), 301(g), 301(h), 301(i), 301(k), or 316(a) or for "fundamentally different factors" within the time specified in §122.21 or §125.27(a).

40 CFR 122.62(a)(6)

(6) 307(a) toxics. When required to incorporate an applicable 307(a) toxic effluent standard or prohibition (see §122.44(b)).

40 CFR 122.62(a)(7)

(7) Reopener. When required by the "reopener" conditions in a permit, which are established in the permit under §122.44(b) (for CWA toxic effluent limitations and standards for sewage sludge use or disposal, see also §122.44(c)) or 40 CFR 403.10(e) (pretreatment program).

40 CFR 122.62(a)(8)

(8) (i) Net limits. Upon request of a permittee who qualifies for effluent limitations on a net basis under §122.45(h).

40 CFR 122.62(a)(8)(ii)

(ii) When a discharger is no longer eligible for net limitations, as provided in §122.45(h)(1)(ii)(B).

40 CFR 122.62(a)(9)

(9) Pretreatment. As necessary under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program).

40 CFR 122.62(a)(10)

(10) Failure to notify. Upon failure of an approved State to notify, as required by section 402(b)(3), another State whose waters may be affected by a discharge from the approved State.

40 CFR 122.62(a)(11)

(11) Non-limited pollutants. When the level of discharge of any pollutant which is not limited in the permit exceeds the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under §125.3(c).

40 CFR 122.62(a)(12)

(12) Notification levels. To establish a "notification level" as provided in §122.44(f).

40 CFR 122.62(a)(13)

(13) Compliance schedules. To modify a schedule of compliance to reflect the time lost during construction of an innovative or alternative facility, in the case of a POTW which has received a grant under section 202(a)(3) of CWA for 100% of the costs to modify or replace facilities constructed with a grant for innovative and alternative wastewater technology under section 202(a)(2). In no case shall the compliance schedule be modified to extend beyond an applicable CWA statutory deadline for compliance.

40 CFR 122.62(a)(14)

(14) [Reserved]

[§122.62(a)(14) removed and reserved at 60 FR 33931, June 29, 1995]

40 CFR 122.62(a)(15)

(15) To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions.
40 CFR 122.62(a)(16)
(16) When the discharger has installed the treatment technology considered by the permit writer in setting effluent limitations imposed under section 402(a)(1) of the CWA and has properly operated and maintained the facilities but nevertheless has been unable to achieve those effluent limitations. In this case, the limitations in the modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by a subsequently promulgated effluent limitations guideline).
40 CFR 122.62(a)(17)
(17) [Reserved]
[§122.62(a)(17) removed and reserved at 60 FR 33931, June 29, 1995]
40 CFR 122.62(a)(18)
(18) Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
40 CFR 122.62(b)
(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:
40 CFR 122.62(b)(1)
(1) Cause exists for termination under §122.64, and the Director determines that modification or revocation and reissuance is appropriate.
40 CFR 122.62(b)(2)
(2) The Director has received notification (as required in the permit, see §122.41(l)(3)) of a proposed transfer of the permit. A permit also may be modified to reflect a transfer after the effective date of an automatic transfer (§122.61(b)) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.
[Editor's note: The authority for §122.62 is the Clean Water Act (33 U.S.C. 1251 et seq.), the Safe Drinking Water Act (42 U.S.C. 300f et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), and the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)]

40 CFR 122.63 Minor modifications of permits.
Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with part 124 draft permit and public notice as required in §122.62. Minor modifications may only:
40 CFR 122.63(a)
(a) Correct typographical errors;
40 CFR 122.63(b)

(b) Require more frequent monitoring or reporting by the permittee;
40 CFR 122.63(c)
(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement; or
40 CFR 122.63(d)
(d) Allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director.
40 CFR 122.63(e)
(e) (1) Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge under §122.29.
40 CFR 122.63(e)(2)
(2) Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.
40 CFR 122.63(f)
(f) [Reserved]
[§122.63(f) removed and reserved at 60 FR 33931, June 29, 1995]
40 CFR 122.63(g)
(g) Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 (or a modification thereto that has been approved in accordance with the procedures in 40 CFR 403.18) as enforceable conditions of the POTW's permits.

40 CFR 122.64 Termination of permits (applicable to State programs, see §123.25).
40 CFR 122.64(a)
(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:
40 CFR 122.64(a)(1)
(1) Noncompliance by the permittee with any condition of the permit;
40 CFR 122.64(a)(2)
(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;
40 CFR 122.64(a)(3)
(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
40 CFR 122.64(a)(4)
(4) A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge

or sludge use or disposal practice controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).

40 CFR 122.64(b)

(b) The Director shall follow the applicable procedures in part 124 or State procedures in terminating any NPDES permit under this section.

February 16, 2000

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

NPDES NO. CA0001350

MONITORING AND REPORTING PROGRAM NO. 2000-03
FOR
CABRILLO POWER I LLC
ENCINA POWER PLANT
SAN DIEGO COUNTY

A. MONITORING PROVISIONS

1. Monitoring results shall be reported at intervals specified elsewhere in this monitoring and reporting program.

2. This monitoring plan may be modified to incorporate changes in frequency or types of analysis to be consistent with the Regional Monitoring Program that is currently under development.

3. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Executive Officer.

4. Appropriate flow measurement devices and/or methods for calculating flowrates shall be consistent with accepted scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Any flow measuring device used shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than $\pm$10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

   a. "Guide to Methods and Standard for the Measurement of Water Flow," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 97 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)

b. "Water Measurement Manual," U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D. C. 20402. Order by Catalog No. 127, 19/2:W29/2, Stock No. S/N 24003-0027.)

c. "Flow Measurement in Open Channels and Closed Conduits," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273-535/5ST.)

d. "NPDES Compliance Sampling Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, Denver, CO 80225).

5. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in this Order.

6. Monitoring reports shall include all of the following:

a) the method used for analysis of waste constituents,

b) the method detection limit (MDL) for each analysis performed (as defined in the Ocean Plan). Note that the MDL varies depending on matrix effects. For substantially different matrices, for example freshwater and saltwater, two different MDL's should be reported.

c) Raw data. For example, in the flow-proportioned sample of in-plant waste streams, the measured effluent concentration shall be reported in addition to any calculated values.

7. For all reported data, including Waste Discharge applications, it shall be the discharger's responsibility to utilize analytical techniques with detection limits lower than the permit limits specified in this order. In cases where no permissible analytical technique provides a detection limit less than the permit limit, the discharger shall utilize the most sensitive technique available. Upon promulgation of new analytical techniques, it shall be the

discharger's responsibility to review these new techniques and utilize them if necessary.

8. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.

9. If the discharger monitors any pollutants more frequently than required by this Order, using test procedures approved under 40 ~~(~~CFR~~)~~, Part 136, or, in the case of sludge use and disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.

10. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation when requested by the Regional Board Executive Officer of the United States Environmental Protection Agency.

11. Records of monitoring information shall include:

    a. The date, exact place, and time of sampling or measurements;
    b. The individual(s) who performed the sampling or measurements;
    c. The date(s) analyses were performed;
    d. The individual(s) who performed analyses;
    e. The analytical techniques of method used; and
    f. The results of such analyses.

12. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Executive Officer or in this Order.

13. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices.

14. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent of the samples or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by USEPA or the Regional Board, the discharger will participate in the NPDES discharge monitoring report QA performance study. The discharger should have a success rate equal to or greater than 80 percent.

15. In the self-monitoring reports required by this order, the discharger shall summarize any instances of noncompliance that occurred during the reporting period. The summary shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

16. Monitoring reports shall be signed by an authorized person as required by 40 CFR 122.22.

17. A composite sample is defined as a combination of 24 aliquots of at least 100 milliliters each, collected hourly over a 24-hour period. Each individual aliquot must consist of 4 samples taken at 15 minute intervals. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

18. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes. Operators should take all precautions to ensure that grab samples are representative.

19. Acute Toxicity Testing

    The presence of acute toxicity shall be determined as specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA 600/4-90-027F, August, 1993 or subsequent editions). Samples shall be taken at the NPDES sampling location of the combined discharge. There is no mixing zone allowance for acute toxicity. The permittee shall conduct 96-hour static-renewal tests using Menidia beryllina. The effluent concentrations will be 100%, 75%, 50%, 25%, and 12.5% and a control. Note: When the State Water Resources Control Board approves the use of topsmelt, Atherinops affinis this species will replace the use of Menidia beryllina. The

effluent tests must be conducted with concurrent reference toxicant tests. Both the reference toxicant and the effluent test must meet all test acceptability criteria as specified in the acute manual.

The test results must be reported to the Regional Board according to chapter 12 of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Section 12.2, section 12.3.2, and section 12.7.5 may be omitted.

Compliance will be determined using toxic units acute (TUa) as defined in the endnotes of Order No. 2000-03.

20. Chronic Toxicity Testing

The permittee shall conduct semiannual toxicity tests on 24-hour composite effluent samples. Testing shall be performed using methods outlined in "Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to west coast marine and estuarine organisms" or "SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. 96-1WQ."

Samples shall be taken at the NPDES sampling location of the combined discharge. At the time of the first toxicity test following adoption of this permit, the permittee shall conduct toxicity tests with an invertebrate, Haliotis rufescens, a plant Macrocystis pyrifera, and a vertebrate Atherinops Affinis. After this screening period, monitoring will be conducted on the most sensitive species. Every two years the permittee shall re-screen to determine the most sensitive species. This screening shall be performed on a different month than previous species screenings. The most sensitive species shall then be used.

At least five concentrations of effluent (two concentrations must bracket the initial dilution of 6% effluent) plus a control, shall be tested. A minimum of four replicates is required per concentration. The effluent tests must be conducted with concurrent reference toxicant tests. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic manuals.

The summary report submitted to the Regional Board must follow the guidelines specified in Chapter 10 of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. Section 10.2 and section 10.3.2 of that chapter is not required.

Compliance will be determined using toxic units chronic (TUc) as defined in the endnotes of Order No. 2000-03.

21. Toxicity Provisions

a) Implementation of the Acute and Chronic Limits

If the results of an acute or chronic toxicity test exceeds the limits specified in this order, the discharger shall:

1) Take all reasonable measures necessary to immediately minimize toxicity; and
2) Increase the frequency of the toxicity test(s) that violated the effluent limitation to at least two times per month until the results of at least three consecutive toxicity tests meet the required standard. Resampling should occur under conditions that mimic the conditions of the initial non-compliant toxicity test.

If the Executive Officer determines that toxicity testing shows a consistent violation of the limits specified in this order, the discharger shall conduct a TRE which includes all reasonable steps to identify the source of toxicity. Once the source of toxicity is identified, upon the Executive Officer's request, the discharger shall take all reasonable steps to reduce the toxicity to meet the toxicity limitations contained in this Order.

Within fourteen days of completion of the TRE, the discharger shall submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with this Order and prevent future violations, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the discretion of the Executive Officer.

The EPA acute and chronic manuals EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA/600/R-92/081 (Phase III) and EPA/600/2-88/070, (TRE protocol for industrials) are excellent resources documents that may be helpful to the discharger.

b) Toxicity Reopener

This permit may be modified in accordance with the requirements set forth at 40 CFR Part 122 and 124, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new state water quality standards applicable to effluent toxicity.

22. The monitoring program for a discharger with discharge requirements shall:

    a) Determine compliance with the terms and conditions of Order No. 2000-03.

    b) Determine that the applicable State and Federal water quality standards are met.

23. Revisions of the monitoring program by the Regional Board staff are appropriate to ensure that the discharger is in compliance with requirements and provisions contained in this order. Revisions may be made by the Executive Officer at any time during the term of this Order, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.

B. COOLING WATER INTAKE STRUCTURE MONITORING PROGRAM

1. The following shall constitute the monitoring program for the bar rack and intake structure.

   The discharger shall annually measure bar rack approach velocity and sediment accumulation at the intake structure and shall submit to the Executive Officer an annual summary describing any operational difficulties at the intake structure or the bar rack. The discharger shall also discuss preventive maintenance and corrective measures taken to assure intake water velocities are as close as practical to design levels.

2. Samples of the intake cooling water shall be collected in accordance with the following criteria. Temperature shall be recorded at a minimum frequency of once every two hours. The average and maximum temperature for each 24-hour period shall be reported.

Parameter	Units[2/]	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Temperature[1/]	°F	Measurement	Continuous	Monthly
Total Suspended Solids	mg/l	Grab	Monthly	Monthly
Turbidity	NTU	Grab	Monthly	Monthly

pH[3/]	pH units	Grab	Monthly	Monthly

C. COMBINED DISCHARGE MONITORING PROGRAM

1. The following shall constitute the combined discharge monitoring program. Samples for combined discharge monitoring shall be conducted at a point in the circulating water system downstream of the condenser, downstream of the point(s) at which component cooling and turbine plant cooling waste streams reenter the circulating water stream, and downstream of the point(s) at which all in-plant waste streams enter the circulating water stream. Combined discharge samples shall be collected immediately following, or simultaneously with, cooling water intake samples.

Parameter	Units[2/]	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Flow	MGallons /Day	Measurement	Continuous	Monthly
Temperature[1/]	°F	Measurement	Continuous	Monthly
pH[3/]	pH units	Grab	Monthly	Monthly
Turbidity	NTU	Grab	Monthly	Monthly
Total Suspended Solids	mg/l	Grab	Monthly	Monthly
Acute Toxicity	TUa	Composite[5/]	Quarterly	Semiannual
Arsenic	ug/l	Grab	Semiannual	Semiannual
Cadmium	ug/l	Grab	Semiannual	Semiannual
Chromium (hexavalent)[7/]	ug/l	Grab	Semiannual	Semiannual
Copper	ug/l	Grab	Semiannual	Semiannual
Lead	ug/l	Grab	Semiannual	Semiannual
Mercury	ug/l	Grab	Semiannual	Semiannual
Nickel	ug/l	Grab	Semiannual	Semiannual
Zinc	ug/l	Grab	Semiannual	Semiannual

Total Chlorine Residual[4/]	ug/l	Grab	Monthly	Monthly
Total Chlorine Residual[10/]	ug/l	Grab	Annual	Annual
Chronic Toxicity (General)[5/]	TUc	Composite[5/]	Semiannual[5/]	Semiannual
Chronic Toxicity (Metal Cleaning)[6/]	TUc	Composite[6/]	6/	Annual

D. IN-PLANT WASTESTREAM MONITORING PROGRAM

The following shall constitute the in-plant waste stream monitoring program. The reported values shall result from individual grab samples of in-plant waste streams that are collected and composited on a flow-weighted basis. Measurements or estimates of flows of individual in-plant waste streams used as a basis for compositing shall be reported. If possible, the sampling should be timed so that metal cleaning wastes are included in the composited sample. The flowrate used to determine the proportion of each waste stream in the combined sample shall be the yearly average.

The final composite sample shall be derived from all of the following wastestreams: Seawater Reverse Osmosis (R.O.) pretreatment, Saltwater R.O. Brine, Low Volume Treatment Facility, Metal Cleaning Treatment Facility, Boiler Blowdown, Unit 4 and 5 Basement Sumps, Fuel Line Hydrotest, and Freshwater R.O. Brine.

Parameter	Units[2/]	Minimum Frequency of Analysis	Reporting Frequency
pH	pH units	Semiannual	Semiannual
Total Suspended Solids	mg/l	Semiannual	Semiannual
Arsenic	lb/Day	Semiannual[8/]	Semiannual
Cadmium	lb/Day	Semiannual[8/]	Semiannual
Chromium (Hexavalent)[7/]	lb/Day	Semiannual[8/]	Semiannual
Copper	lb/Day	Semiannual	Semiannual
Lead	lb/Day	Semiannual[8/]	Semiannual

Mercury	lb/Day	Semiannual[8/]	Semiannual
Nickel	lb/Day	Semiannual	Semiannual
Selenium	lb/Day	Semiannual[8/]	Semiannual
Silver	lb/Day	Semiannual[8/]	Semiannual
Zinc	lb/Day	Semiannual	Semiannual
Cyanide	lb/Day	Semiannual[8/]	Semiannual
Ammonia (expressed as nitrogen)	lb/Day	Semiannual[8/]	Semiannual
Phenolic Compounds (non-chlorinated)	lb/Day	Semiannual	Semiannual
Chlorinated Phenolics	lb/Day	Semiannual[8/]	Semiannual
Chlorobenzene	lb/Day	Semiannual[8/]	Semiannual
Chromium (III)	lb/Day	Semiannual[8/]	Semiannual
Dichlorobenzenes	lb/Day	Semiannual[8/]	Semiannual
1,1-dichloroethylene	lb/Day	Semiannual[8/]	Semiannual
Ethylbenzene	lb/Day	Semiannual	Semiannual
Nitrobenzene	lb/Day	Semiannual	Semiannual
Toluene	lb/Day	Semiannual	Semiannual
1,1,1-trichloroethane	lb/Day	Semiannual[8/]	Semiannual
1,1,2-trichloroethane	lb/Day	Semiannual[8/]	Semiannual
Benzene	lb/Day	Semiannual	Semiannual
Chloroform	lb/Day	Semiannual[8/]	Semiannual
1,4-dichlorobenzene	lb/Day	Semiannual[8/]	Semiannual
1,2-dichloroethane	lb/Day	Semiannual[8/]	Semiannual
Dichloromethane	lb/Day	Semiannual[8/]	Semiannual
1,2-diphenylhydrazine	lb/Day	Semiannual[8/]	Semiannual
Tetrachloroethylene	lb/Day	Semiannual[8/]	Semiannual
Trichloroethylene	lb/Day	Semiannual[8/]	Semiannual

E. LOW VOLUME WASTE MONITORING PROGRAM

Monitoring of the low volume waste treatment facility, fuel-line/tank hydrotests, the seawater R.O. pre-treatment, and the Saltwater R.O. shall consist of the following. Samples shall be taken prior to mixing with the combined cooling water flow.

Parameter	Units[2/]	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Flow	MGallons /Day	Estimate of Total Monthly Flow	Monthly	Monthly
Total Suspended Solids	mg/l	Grab	Monthly	Monthly
Grease and Oil	mg/l	Grab	Monthly	Monthly

F. METAL CLEANING WASTES MONITORING PROGRAM

Monitoring of the metal cleaning waste treatment facility shall consist of the following. Samples shall be taken from the final holding tank prior to discharge.

Parameter	Units[2/]	Sample Type	Minimum Frequency of Analysis	Reporting Frequency
Flow	MGallons /Day	Estimate of Total Monthly Flow	Monthly	Monthly
Total Suspended Solids	mg/l	Grab	[9/]	Monthly
Grease and Oil	mg/l	Grab	[9/]	Monthly
Total Copper	mg/l	Grab	[9/]	Monthly
Total Iron	mg/l	Grab	[9/]	Monthly
pH	pH units	Grab	[9/]	Monthly

G. RECEIVING WATER MONITORING PROGRAM STATION IDENTIFICATION

Receiving water and sediment monitoring shall be conducted as specified below. Sampling, sampling preservation and analysis, when not specified, shall be by methods approved by the Executive Officer. The monitoring program shall be modified by the Executive Officer at any time.

Dispersion Area Stations: There are 10 stations located on three transects in the dispersion area. The transects shall be established normal to the shore. Transects and stations shall be located and numbered as follows:

Transect	Description
C	1000 feet upcoast (northerly) of the discharge channel
D	Discharge Channel
E	1000 feet downcoast (southerly) of the discharge channel

Station	Transect	Description
C-10	C	521 feet offshore
C-20	C	956 feet offshore
C-30	C	2000 feet offshore
D-10	D	565 feet offshore
D-20	D	1129 feet offshore
D-30	D	1600 feet offshore
D-50	D	2800 feet offshore
E-10	E	652 feet offshore
E-20	E	1086 feet offshore
E-30	E	2000 feet offshore

Reference Area Station: There are four stations located on a transect in the reference area. The transect shall be established normal to the shore. The transect and station shall be located and numbered as follows:

Station	Transect	Description
	A	7000 feet upcoast (northerly of the discharge channel

A-10	A	At 10 foot depth (MLLW)
A-20	A	At 20 foot depth (MLLW)
A-30	A	At 30 foot depth (MLLW)
A-50	A	3400 feet offshore

H. RECEIVING WATER MONITORING PROGRAM

The following study elements shall represent the receiving water monitoring program.

1. Light Transmittance

The light transmittance shall be measured semiannually via (Secchi disk) at stations A-10 to A-50, C-10 to C-30, D-10 to D-50, and E-10 to E-30.

2. Water Quality Measurements

The dissolved oxygen concentration and pH shall be measured semiannually via grab sample at surface stations A-10 to A-50, C-10 to C-30, D-10 to D-50, and E-10 to E-30.

3. Thermal Plume

The thermal plume shall be characterized via aerial infrared mapping on a semiannual basis.

REPORTING: Items 1 through 3 of the receiving water monitoring program shall be performed and reported on a semiannual basis. The report shall include an in-depth discussion of the results of the survey. The discussion shall compare data from the reference station(s) with data from the stations located in the area of the discharge and shall note compliance with the objectives found in this order and the Ocean Plan. The report shall include a description of the methods and equipment used to obtain the data.

4. Kelp Bed Monitoring

Kelp Bed monitoring is conducted to assess the extent to which the discharge of wastes may affect the areal extent and health of the coastal kelp beds.

The discharger shall participate with other ocean dischargers in the San Diego Region in an annual regional kelp bed photographic survey. Kelp beds shall be monitored annually by means of vertical aerial

infrared photography to determine the maximum areal extent of the region's coastal kelp beds within the calendar year. Surveys shall be conducted as close as possible to the time when kelp bed canopies cover the greatest area, which ordinarily occurs in August or September in the San Diego Region. The entire San Diego Region coastline, from the International Boundary to the San Diego Region/Santa Ana Region boundary, shall be photographed on the same day. The date of each annual survey shall be approved by Regional Board staff. (Verbal approval will be sufficient, so that the survey will not be delayed while written approval is prepared and distributed.)

The images produced by the surveys shall be presented in the form of a 1:24,000 scale photo-mosaic of the entire San Diego Region coastline. Onshore reference points, locations of all ocean outfalls and diffusers, and the 30-foot (MLLW) and 60-foot (MLLW) depth contours shall be shown.

The areal extent of the various kelp beds photographed in each survey shall be compared to that noted in surveys of previous years. Any significant losses which persist for more than one year shall be investigated by divers to determine the probable reason for the loss.

I. ANNUAL SUMMARY OF MONITORING DATA

By February 1 of each year, the discharger shall submit an annual report to the Executive Officer. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharger into full compliance with the waste discharge requirements of this Order.

J. MONITORING REPORT SCHEDULE

Monitoring reports shall be submitted to the Executive Officer according to the dates in the following schedule:

Reporting Frequency	Report Due
Monthly	First day of the second month after the month of sampling
Quarterly	First day of the second month after the quarter: May 1st, August 1st, November 1st, and February 1st

Semiannual	First day of the second month after the 6-month period: August 1st and February 1st
Annual	February 1st

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Date Ordered:
February 9, 2000

Ordered by
for John H. Robertus
Executive Officer

S. Endnote references for waste discharge requirements of Order No. 2000-03 (NPDES No. CA0001350), Cabrillo Power I, LLC, Encina power Plant, San Diego County.

1. Temperature shall be recorded at a minimum frequency of once every two hours. The average and maximum temperature for each 24-hour period shall also be reported. The daily average difference (ΔT) and the maximum daily difference (ΔT_m) between the intake and discharge temperatures shall also be reported.

2. Units are defined as follows:

   mg/l = milligrams per liter
   ug/l = micrograms per liter
   ng/l = nanograms per liter
   NTU = Nephelometric Turbidity Units
   lb/Day = pounds per day
   ml/l = milliliters per liter

3. Samples for pH shall be collected and analyzed for pH during chlorination, and if possible, during metal cleaning waste discharge.

4. Samples shall be collected and analyzed for total chlorine residual at times when the concentrations of total chlorine residual in the combined discharge are greatest. On the day samples are collected, the duration of chlorination and the time of sample collection shall be reported. The instantaneous chlorine residual limitation for intermittent discharges shall apply to this sample.

5. Sampling for general toxicity tests should be performed on days where expected inputs from in-plant waste streams are maximized or immediately subsequent to changes in the character of the discharge.

6. During chemical metal cleaning processes, toxicity testing shall be performed. Sampling shall occur at the combined discharge, and shall occur at such time as to maximize the input from metal cleaning wastes. The sample shall consist of aliquots taken at least every hour that discharge of such waste occurs for a maximum of 24 hours. One test shall be performed for each generating unit. It is not necessary to perform toxicity testing during the discharge of Air Heater Wash or Hypochlorinator Chemical Cleaning Wash Waters.

7. The discharger may satisfy this limitation as a total chromium limitation if so desired.

8. After three reporting periods have passed with non-detectable results, the discharger may forego sampling and

analysis by certifying that these substances are not discharged. The discharger must re-certify for each new sampling period.

9. Samples should be taken prior to discharge.

10. This sample should be taken when there is no chlorine residual resulting from chlorination of the main condensers. The 6-month and daily limits for continuous chlorine discharges shall apply.